

NOTIFICATION.

The 5th June 1883.—It is hereby notified that the Lieutenant-Governor sanctions the extension of the provisions of section 34 of Act V of 1861 to the town of Bongong and to the municipality of Moheshpore, in the Bongong sub-division of the district of Jessore.

F. B. PEACOCK,

Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 22nd May 1883.—Under section 2 of Act II (B.C.) of 1867 (an Act to provide for the punishment of public gambling and the keeping of common gaming houses), the Lieutenant-Governor hereby extends all the sections of the said Act to the town of Silli, in the district of Lohardugga.

For the purposes of the above Act the boundaries of the town are as follows:—

On the North—Villages Catadi, Sarungjûrû, and Caloodih.

On the South—Tutkû, Nowadi, Lupdeg, Moissodi, and Domondi.

On the East—Japla, Bhamandi, and Murû.

On the West—Loopung, Manjuru, and Sillidi.

F. B. PEACOCK,

Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 30th May 1883.—It is hereby notified, under the provisions of section 15 of Act V of 1861, that as several obstructions have been from time to time placed on the part of the Northern Bengal State Railway which runs through the villages of Harova, Nelphamaree, Bamondanga, and Kanaikhata, in the Nelphamaree sub-division of the Rungpore district, and as such obstructions could only have been so placed by the villagers themselves or through their connivance, the Lieutenant-Governor has sanctioned the employment of a special force, consisting of one head constable and ten constables, for three months commencing from 1st June 1883, to be quartered at the aforesaid villages for the purpose of preventing obstruction being placed on the line.

The cost of the force, as noted below, will be levied from the villagers in proportion to their respective means:—

			Rs.	A.	P.
1	Third grade head constable	..	15	0	0
2	Second grade constables, at Rs. 8 each	..	16	0	0
2	Third ditto " " 7 "	..	14	0	0
6	Fourth ditto " " 6 "	..	36	0	0
	Contingencies at 10 per cent.	..	8	1	7
	Pensionary charges at 2 annas per rupee	..	10	2	0
	Clothing at Rs. 4 each per year	..	3	10	8
	Per mensem	..	102	14	3
	And for three months	..	308	10	9

F. B. PEACOCK,

Secretary to the Govt. of Bengal.

[Third Publication.]

NOTIFICATION.

The 21st May 1883.—Under section 2 of Act II (B.C.) of 1867 (an Act to provide for the punishment of public gambling and the keeping of common gaming houses in the territories subject to the Lieutenant-Governor of Bengal), the Lieutenant-Governor hereby extends all the sections of the said Act to the town of Sitamarhee, as comprised within the limits of the Sitamarhee Municipality, in the district of Mozufferpore.

F. B. PEACOCK,

Secretary to the Govt. of Bengal.

[Second Publication.]

DECLARATION.

The 4th June 1883.—Whereas it appears to the Lieutenant-Governor that land is required to be taken by Government at the public expense for a public purpose, viz. for extending the jail garden of Dacca, in kismat Tatkhana, pergunnah Jahangirnagar, zillah Dacca, it is hereby declared that for the above purpose a piece of land measuring more or less 17 beeghas 4 cottahs of standard measurement, bounded on the north by the lands of Ratan Mistri, Fullu Mistri, and Nanda Kumar Shing of Dacca; on the south by a public lane; on the east by Tatkhana lane; and on the west by the land of the said Nanda Kumar Shing, is required within the aforesaid kismat in Dacca.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

A plan of the land above specified may be seen at the office of the Collector of Dacca.

F. B. PEACOCK,

Secretary to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT, —BENGAL.

The 9th June 1883.

No. 221.—*Transfer.*—The following transfers are made in the interests of the public service :—

Name.	Rank.	From	To
Mr. W. H. Rushton ...	Assistant Engineer, second grade.	Calcutta Workshops Division.	Tirhoot and Northern Bengal State Railway Extension.
Mr. H. B. Taylor ...	Ditto ...	Second Calcutta Division.	Ditto.

The 11th June 1883.

No. 222.—*Notification.*—Mr. F. D. Kiernander, Assistant Traffic Superintendent, Northern Bengal State Railway, passed the lower standard examination in Hindustani on the 2nd April 1883.

CIVIL BUILDINGS.

The 11th June 1883.

No. 223.—*Declaration.*—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for extension of the Rajshahye College compound in the village of Durgapara, pergunnah Garerhat, zillah Rajshahye, it is hereby declared that for the above purpose two pieces of land measuring, more or less, 1 beegah 16 cottabs 14½ chittacks of standard measurement, bounded as below—

(Plot No. 1)—North by new College compound and the Madrassa tank; east by old school compound; south by land of Karim Baksh; and west by Madrassa tank and land of Madhob Bagdy :

(Plot No. 2)—North by new Municipal Office land, old Madrassa, and house of Anandi Sheik, south by Cutcherry road; east by land belonging to New Municipal building; and west by the land of Anandi Sheik :

are required within the aforesaid village of Durgapara.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

No. 224.—*Declaration.*—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for a railway diversion for the use of the Darjeeling-Himalayan Railway Company on the 12th mile of the Darjeeling Hill Cart Road, in zillah Darjeeling, it is hereby declared that for the above purpose a piece of land measuring, more or less, 1 rood 8.85 poles of standard measurement, bounded on the north by short cut reserved lands; east by Sepoydhura Tea Estate; south by Sepoydhura Tea Estate, and partly by Cart Road reserved land; west by Cart Road reserved land, is required within the aforesaid mile of Darjeeling Hill Cart Road.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

No. 225.—*Declaration.*—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for the use of the Darjeeling-Himalayan Railway Company for a railway diversion on the 13th mile of the Darjeeling Hill Cart Road, in zillah Darjeeling, it is hereby declared that for the above purpose a piece of land measuring, more or less, 1 rood and 21.01 poles of standard measurement, bounded on the north, east, and south by Selim Hill Tea Estate and Cart Road reserved lands; and on the west by Cart Road reserved lands only, is required within the aforesaid mile of the Darjeeling Hill Cart Road.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

No. 226.—*Declaration.*—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for the use of the Darjeeling-Himalayan Railway Company for a railway diversion on the 12th mile of the Darjeeling Hill Cart Road, in zillah Darjeeling, it is hereby declared that for the above purpose a piece of land measuring, more or less, 26.60 poles of standard measurement, bounded on the north and west by Sepoydhura Tea Estate; south by Sepoydhura Tea Estate, and partly Cart Road reserved land; east by Cart Road reserved land, is required within the aforesaid 12th mile of Darjeeling Hill Cart Road.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

No. 227.—*Declaration.*—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for the use of the Darjeeling-Himalayan Railway Company for a railway diversion on the 12th mile post of the Darjeeling Hill Cart Road, in the zillah Darjeeling, it is hereby declared that for the above purpose a piece of land measuring, more or less, 31·29 poles of standard measurement, bounded on the north by Cart Road reserved land; east and south by Sepoydhura Tea Estate; west by Sepoydhura Tea Estate, and partly by Cart Road reserved land, is required within the aforesaid mile post of the Darjeeling Hill Cart Road.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

G. F. E. S. NEILL, Major, M.S.C.,
Under-Secretary to the Govt. of Bengal, P. W. D.

ECCLESIASTICAL.

THE Rev. Arthur Kitchin, Chaplain of St. James' Church at Calcutta, has been appointed, by the Commissary of the Lord Bishop of Calcutta, Surrogate in this Diocese for granting Episcopal licenses of marriage.

A. B. MILLER, Registrar of the Diocese.

DIOCESAN REGISTRY OFFICE, the 5th June 1883.

SMALL CAUSE COURT NOTICE.

UNDER section 14, Act XI of 1865, notice is hereby given that, subject to the orders of Government, the Judge of the Court of Small Causes at Narail will sit again in that Court on the dates mentioned below :—

From 24th to 28th June 1883, Sundays and holidays excepted.

SYED MOAZZUM HOSSAIN, Judge.

NARAIL SMALL CAUSE COURT, the 8th June 1883.

TREASURY NOTICE.

BABOO BHUGWAN CHUNDER BOSE, Deputy Collector, has been put in charge of the Hooghly Treasury, and is authorized to draw bills on other treasuries.

JOHN BEAMES, Commissioner.

COMMR'S. OFFICE, BURDWAN DIVISION, the 7th June 1883.

EDUCATIONAL NOTICES.

THE Calcutta Medical College Session 1883-84 will commence on the 16th June next. 2. Students who may be desirous of commencing their studies are requested to apply to the Principal between the hours of 11 A.M. and 4 P.M. on or before the 15th June next.

Ten (10) free presentations will then be awarded. These are given to students according to their relative position in the University B.A., B.L., and F.A. Examinations, preference being given to those who have passed the highest examination.

3. No person shall be enrolled on the list of regular students of the college who has not previously passed the First Arts Examination of the Calcutta University, or some one of the preliminary Arts Examinations of the United Kingdom recognized by the British General Medical Council.

4. All regular students of the college are required to pay Rs. 15 on entrance, Rs. 30 for the Summer session on the 15th June, and Rs. 30 for the Winter session in November of each year.

5. Students who have failed to pass, and who, under the regulations of the University, are required to attend a further course of lectures and of hospital practice before being allowed to present themselves again for examination, will pay for such further course an annual fee of Rs. 45 in two instalments of Rs. 30 and Rs. 15, payable at the beginning of the Summer and Winter session respectively.

6. Any regular students of the college may, with the permission of the Principal and the Professors of the subject, attend courses of lectures or departments of hospital practice outside and in addition to the full curriculum for the year, and he shall be entitled to certificates of attendance at such extra lectures, if the Professor is satisfied that he has really studied the subject. The fees payable in advance for such additional courses are the following :—

	Rs.
For a single course of lectures on each subject	40
For six months' attendance in each department of hospital practice...	60

7. Any regular student who leaves the college before completing his University course with the object of continuing his studies at a medical school in Europe may receive certificates of attendance at lectures on payment of fees at the rates fixed in the foregoing rule. But in calculating the sum to be so paid the amount of the fees already paid by him as a regular student, or, in the case of a free student, the amount which would have been paid by him had he been a paying student, shall be deducted.

8. Any person not being a regular student of the college, who may be desirous of attending any course of lectures or any department of hospital practice, may do so with the permission of the Principal and the Professor of the subject, on payment, in advance, of fees at the rates fixed in Rule 6.

If such student has passed the Entrance Examination of the University, he may receive certificates of attendance at lectures, provided the Professors are satisfied that he has attended the full course of lectures, and has mastered the subject taught.

A student who has not passed the Entrance Examination will be entitled to no certificates of any kind.

9. College scholarships, prizes, and certificates of honour are open for competition only to regular students of the college and the Hospital Apprentice class.

10. No fees are payable by the holders of the Calcutta Medical College Scholarships.

The holders of the Doorga Charan Laha and all other scholarships will be required to pay fees as a regular student. These scholars may pay their fees in advance, or have their scholarship money deducted till the full amount is received.

11. Any student holding a Medical College scholarship will be permitted to draw the stipend of the said scholarship at any recognized medical school in the United Kingdom, provided he furnishes from the head of such school a certificate of good conduct and diligent prosecution of his studies.

12. The offices of class assistant, clinical clerk, dressers, &c., can be held only by students whose names are on the rolls of the college.

J. M. COATES, M.D., *Principal, Medical College.*

MEDICAL COLLEGE OFFICE, Calcutta, the 15th May 1883.

JUNIOR SCHOLARSHIP NOTICE FOR 1883.

It is hereby notified that of the ten junior scholarships allotted to this division, four second grade scholarships, of Rs. 15 a month, tenable for two years, will be awarded, irrespective of districts, to those candidates who obtain the highest total of marks in the examination to be held in December next, and the remaining six, third grade scholarships, of Rs. 10 a month, tenable also for two years, will be distributed among the three districts of the division as follows :—

Cuttack	...	...	...	...	...	2
Pooree	...	...	...	...	...	2
Balasore	...	...	...	...	...	2

Scholarships not taken up by the district to which they are allotted will be awarded to candidates from other districts standing next on the divisional list. The above scholarships are to be held only in the Ravenshaw College, except when the student wishes to attend a college for Medicine or Civil Engineering situated outside the province.

A. SMITH, *Commissioner.*

COMMR'S. OFFICE, ORISSA DIVISION, Cuttack, the May 1883.

NOTIFICATION OF THE BOARD OF REVENUE.

No. 627B.

NOTICE is hereby given that the Seventh Sale of Opium, the provision of 1881-82, will be held at the Government Opium Sale-room, No. 2, Bankshall-street, on Tuesday, the 3rd July 1883, at 11 A.M., and will comprise 4,700 chests, viz :—

	Chests.
Opium manufactured at the Patna Factory, consisting of 75° consistence ..	2,350
Do. do. do. Ghazipore Factory, consisting of 72° consistence ..	2,350
Total ..	4,700

2. The general conditions of the sale now advertised will be the same as usual. They may be ascertained by reference to the Notification issued on the 28th November 1882, and published in the *Government and Exchange Gazettes*, or on personal application at the office of the Board of Revenue.

3. The latest dates for deposit and clearance will be the 9th and 18th July 1883, respectively—that is to say, no Bank of Bengal Receipts, Government Promissory Notes, or other public securities that may be tendered for deposit in redemption of Promissory Notes given by purchasers in the sale-room will be received after 3-30 p.m. of Monday, the 9th July 1883, and no Bank of Bengal Receipts in full payment of lots will be accepted after 3-30 p.m. of Wednesday, the 18th July 1883.

4. Including the quantity above advertised for sale, the following quantities, more or less, of the Opium manufactured at the Patna and Ghazipore Factories will be brought to sale up to March 1884 about the dates specified below. The Board of Revenue, however, reserve to themselves the right of altering these dates should circumstances render it expedient to do so:—

DATES.		Manufactured at the Patna Factory, about chests.	Manufactured at the Ghazipore Factory, about chests.	Total, about chests.
On or about Tuesday,	3rd July 1883 ...	2,350	2,350	4,700
Do. about Thursday,	2nd August „ ...	2,225	2,225	4,450
Do. about Monday,	3rd September „ ..	2,225	2,225	4,450
Do. about Wednesday,	26th „ „ ...	2,225	2,225	4,450
Do. about Thursday,	1st November „ ...	2,225	2,225	4,450
Do. about Monday,	3rd December „ ...	2,225	2,225	4,450
Early in January	1884	The number of chests of each kind to be sold each month will be advertised hereafter.		4,450
Do. February	„			4,450
Do. March	„			4,450
Total ...		.....	.....	40,300

By order of the Board of Revenue, L.P.,

C. E. BUCKLAND, *Offg. Secretary.*

BOARD OF REVENUE, L.P., FORT WILLIAM, the 29th May 1883.

Statement showing the Importation of Salt (Private Property) in Bond and Afloat on the River Hooghly subject to Customs Duty on the 31st May 1883.

	Government golahs.	Private golahs.	Afloat.	Total.
	Mds.	Mds.	Mds.	Mds.
Liverpool Pungah	3,28,257	.....	2,00,213	5,28,470
Italian Kurkutch	4,876	.....	.....	4,876
Arabian and Persian Gulfs Kur- kutch and Muscat Rock ...	54,163	.....	24,139	78,302
Total ...	3,87,296	.....	2,24,352	6,11,648

By order of the Board of Revenue, L.P.,

J. ARMSTRONG, *Collector of Customs.*

CALCUTTA CUSTOM HOUSE, the 7th June 1883.

NOTIFICATION BY POSTMASTER-GENERAL, BENGAL.

List of Post Office Inspectors, with the names of districts to which they are attached.

First Grade.

Babu Gyan Chandra Datta	...	Inspector of 24-Pergunnahs.
" Banka Bihari Ghosh	...	Ditto Burdwan.
" Sharada Charan Sarkar	...	Ditto Beerbhoom and Maldah.
" Mohendra Nath Banerjee	...	Supernumerary Inspector.
" Nabin Chandra Mukerjee	...	Inspector of Jessore.
" Bhola Nath Ghoshal	...	Ditto Nuddea.
Munshi Wahid Uddin Mohomed	...	Ditto Diaagepore, Julpigoree, and Cooch Behar.

Second Grade.

Munshi Fakhr Uddin	...	Inspector of Lohardugga.
Babu Sarat Chandra Chatterji	...	Ditto Furreedpore.
Syad Ibu Ahmed	...	Ditto Hazaribagh.
Babu Kailash Chandra Maitra	...	Ditto Rungpore and Bogra.
" Amar Nath Bakshi	...	Ditto Pubna.
" Nibaran Chandra Banerjee	...	Ditto Moershedabad.
" Guru Prasad Doss	...	Ditto Cuttack and Pooree.
" Kali Nath Banerjee	...	Ditto Rajshahye.
Munshi Husain Ali	...	Ditto Midnapore and Balasore.
Babu Chandra Kanta Datta	...	Ditto Bankoora and part of Burdwan.
" Purua Chandra Mukerjee	...	Ditto Khoolna.
" Ishwar Chandra Das	...	Ditto Backergunge.
" Nagendra Chandra Palit	...	Ditto Hooghly and Howrah.
" Uttindra Nath Tagore	...	Ditto Manbhoom and Singbhoom.

J. DILLON,

Offg. Postmaster General, Bengal.



The Calcutta Gazette.

WEDNESDAY, JUNE 20, 1883.

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Part IA is not sent to officers receiving the Gazette of India.

PART I.

Orders and Notifications by the Lieut.-Governor of Bengal,
the High Court, Government Treasury, &c.

ORDERS BY THE LIEUT.-GOVERNOR OF BENGAL.

No. 1707A.

GENERAL.—*The 9th June 1883.*—Baboo Okhoy Coomar Roy Chowdry, Temporary Sub-Deputy Collector, Khoolna, is transferred to the district of Darjeeling.

Baboo Bhoobuneshur Sing, Deputy Magistrate and Deputy Collector, Aurungabad, Gya, is allowed leave for two days, under section 71, chapter V of the Civil Leave Code, in extension of the leave granted to him under the order of the 13th April last.

The 12th June 1883.—Mr. F. M. Halliday is appointed to be Pay Master of the Behar Mounted Rifle Corps, with the rank of Captain.

Lieutenant H. G. Kunhardt, R.E., is appointed to be a Lieutenant in the Behar Mounted Rifle Corps, vice Lieutenant W. S. Mackenzie, deceased.

Mr. C. Brownfield, Temporary Assistant Settlement Officer, Julpigoree, is allowed leave, for one month, under section 136, rule 2, chapter X of the Civil Leave Code, with effect from the date on which he may avail himself of it.

Baboo Ishree Prosad, Sub-Deputy Collector, Bettiah, Chumparun, is allowed leave for one month, under section 71, chapter V of the Civil Leave Code, with effect from such date as he may avail himself of it.

Baboo Kedar Nath Mookerjee, Temporary Sub-Deputy Collector, Sasseram, Shahabad, is allowed leave for three months, under rule 2, section 136, chapter X of the Civil Leave Code, with effect from the forenoon of the 10th ultimo.

Baboo Jogesh Chandra Ghosh is appointed to act as Sub-Deputy Collector of Sasseram, in the district of Shahabad, during the absence, on leave, of Baboo Kedar Nath Mookerjee, or until further orders, with effect from the forenoon of the 10th ultimo.

The 15th June 1883.—Mr. C. A. W. Fordyce, Temporary Sub-Deputy Collector, Khoorda, Pooree, held *sub pro tem* the appointment of a Sub-Deputy Collector of the third grade, from the 1st August 1882 to the 19th March 1883, inclusive, vice Baboo Peary Mohur Bose.

Baboo Beni Madhub Chatterjee is appointed to be a Sub-Deputy Collector of the third grade, substantive *pro tem* with effect from the 1st August 1882, but will continue to be on deputation until further orders.

The 16th June 1883.—Baboo Sheo Nundun Lal Roy, Temporary Deputy Magistrate and Deputy Collector, Patna, is allowed leave for one month, under section 71, chapter V of the Civil Leave Code, with effect from the date on which he availed himself of it.

Moulvie Mofizuddin, Deputy Magistrate and Deputy Collector, Nuddea, was in charge of the Meherpore sub-division of that district, from the 30th April to the 28th May 1883, inclusive.

Mr. N. Warde-Jones, Temporary Deputy Collector, Rampore Hat, Beerbhoom, is vested with the powers of a Collector under Act X of 1870 in that sub-division.

Moulvie Bazalul Huq, Manager of Mr. Courjon's estates in Noakholly, is vested temporarily with the powers of a Deputy Collector, under Regulation IX of 1833, in the Fenny sub-division of that district.

The 18th June 1883.—Baboo Shama Churn Mitter, Deputy Magistrate and Deputy Collector, Fenny sub-division, Noakholly, on leave, is transferred to Gya, and is appointed to have charge of the Aurungabad sub-division of that district.

Baboo Bhoobuneshwar Singh, Deputy Magistrate and Deputy Collector, Aurungabad, Gya, is transferred to Bankoorah, and is posted to the sudder station of that district.

Baboo Koomud Nath Mookerjee, Deputy Magistrate and Deputy Collector, Lohardugga, is transferred to Singbhoom, and is posted to the sudder station of that district.

Mr. W. R. Larminie, Magistrate and Collector, Burdwan, on leave, is appointed to act as Commissioner of Orissa and Superintendent of the Tributary Mehals, Cuttack, during the absence, on leave, of Mr. A. Smith, or until further orders.

Baboo Tarini Churn Mitter, Deputy Magistrate and Deputy Collector, Oolooberiah, Howrah, is transferred to Tipperah, and is posted to the sudder station of that district.

In supersession of the order of the 9th instant, Baboo Nobin Krishna Banerjee, Temporary Deputy Magistrate and Deputy Collector, Magoorah, Jessore, is transferred to Howrah, and is appointed to have charge of the Oolooberiah sub-division of that district.

POLICE.—*The 2nd June 1883.*—Lientenant-Colonel W. W. Hume, District Superintendent of Police, Julpigoree, returned to duty on the forenoon of the 14th May 1883.

The 12th June 1883.—Mr. W. D. Abercrombie, Assistant Superintendent of Police, Sarun, is appointed to act, until further orders, as District Superintendent of Police, Moorshedabad, with effect from the date on which he took over charge of the office.

Baboo Jadub Chunder Deb, Assistant Superintendent of Police, is posted to the district of the 24-Pergunnahs.

The 18th June 1883.—Mr. R. Castle, Officiating Assistant Superintendent of Police, Burdwan, is transferred to Moorshedabad.

Mr. G. M. Wilson is appointed to act, until further orders, as an Assistant Superintendent of Police, and is posted to the district of Dacca.

ECCLESIASTICAL.—*The 12th June 1883.*—Mr. William Marshman Spencer, Wesleyan Missionary, is granted a license, under clause 3, section 5, Act XV of 1872, authorizing him to solemnize marriages between persons one or both of whom is a Christian or Christians.

The 13th June 1883.—The services of the Revd. V. W. Kinsman, Junior Chaplain of St. Paul's Cathedral, and Chaplain of the Presidency Jail, are placed at the disposal of the Government of the North-Western Provinces and Oudh from the 4th June 1883.

REGISTRATION.—*The 5th June 1883.*—Baboo Jogesh Chandra Sen is appointed to be Rural Sub-Registrar of Patuakhally, in the district of Backergunge.

Baboo Deno Nath Dey, Deputy Magistrate and Deputy Collector, Khoolna, is appointed to be also Sudder Sub-Registrar of Khoolna, *vice* Baboo Tarini Coomar Ghose, transferred.

The 7th June 1883.—Munshi Rafiuddin Ahmed Majumdar is appointed to be Rural Sub-Registrar of Bagherpara, in the district of Jessore, *vice* Baboo Mohesh Chunder Banerjee, resigned.

EDUCATION.—*The 13th June 1883.*—Baboo Radha Nath Roy, Joint Inspector of Schools, Orissa Division, is promoted to the second class of the Bengal Subordinate Educational Service, with effect from the 4th February 1883, *vice* Mr. W. E. Cantopher, retired.

Baboo Bhuban Mohan Nyogi, Deputy Inspector of Schools, Rajshahye, is promoted to the third class of the Bengal Subordinate Educational Service, with effect from the 4th February 1883, *vice* Baboo Radha Nath Roy.

Baboo Saroda Prosad Gangooli, Head Master, Gya Zillah School, is promoted to the fourth class of the Bengal Subordinate Educational Service, with effect from the 4th February 1883, *vice* Baboo Bhuban Mohan Nyogi.

Baboo Brajendra Kumar Guha, Deputy Inspector of Schools, Mymensingh, is promoted *sub pro tem* to the fourth class of the Bengal Subordinate Educational Service, with effect from the 4th February 1883, *vice* Baboo Uma Churn Das, on deputation.

The 18th June 1883.—Mr. A. Ewbank, Principal, Patna College, reported his departure from India, on furlough, on the 19th ultimo.

FORESTS.—*The 11th June 1883.*—Mr. C. A. G. Lillingston, Assistant Conservator of Forests, returned to duty on the forenoon of the 26th April 1883.

OPIMUM.—*The 12th June 1883.*—The order of the 17th ultimo, granting three months' privilege leave to Mr. A. Elliot, Assistant Sub-Deputy Opium Agent, Hajepore, is cancelled.

The 15th June 1883.—Mr. G. Nicholson, Assistant Sub-Deputy Opium Agent, Muttra, Benares Agency, is allowed leave for two months, under section 71, chapter V of the Civil Leave Code, with effect from the 1st instant.

MEDICAL.—*The 12th June 1883.*—Assistant Surgeon Amulya Chunder Champati, a Supernumerary at Patna, is appointed temporarily to have charge of the dispensary and sub-division of Barh, in that district, *vice* Assistant Surgeon Asder Ali Khan.

Assistant Surgeon Priumber Nath Mitter, in charge of the charitable dispensary at Behar, in the district of Patna, was on leave, under section 127, chapter X of the Civil Leave Code, from the forenoon of the 14th March to the afternoon of the 29th April 1883.

Supernumerary Assistant Surgeon Amulya Chunder Champati was in charge of the charitable dispensary at Behar, in the district of Patna, during the absence, on leave, of Assistant Surgeon Priumber Nath Mitter, from the 14th March to the 29th April 1883, both days inclusive.

VACCINATION.—*The 12th June 1883.*—Surgeon-Major K. P. Gupta, Superintendent of Vaccination, Metropolitan Circle, is allowed leave for one month, under section 71, chapter V of the Civil Leave Code.

MUNICIPAL.—*The 15th June 1883.*—The following gentlemen are appointed to be Commissioners of the Joynagore Municipality, in the district of the 24-Pergannahs :—

Baboo Biraj Krishna Dutta.	Baboo Chandra Kumar Bhattacharjee.
„ Russick Mohan Banerjee.	„ Baman Deo Bhattacharjee.

The following gentlemen are re-appointed to be Commissioners of the above municipality :—

Baboo Rakhal Dass Ghose.	Baboo Chandra Kumar Banerjee.
„ Haran Chandra Mittra.	„ Shiba Prosunno Chatterjee.
	Baboo Nil Rutton Mittra.

Mr. J. Robinson, c.e., is appointed to be a Commissioner of the municipality of Bhagulpore.

ROAD CESS.—*The 13th June 1883.*—Baboo Gobind Mohun Ghosh, Deputy Magistrate and Deputy Collector, is appointed to be Vice-Chairman of the Mozufferpore District Road Cess Committee, *vice* Baboo Gunga Nath Roy.

The 15th June 1883.—Baboo Mohendra Nath Pundit, talookdar, is appointed to be a member of the Burdwan District Road Cess Committee, *vice* Baboo Mudun Lall Tewary, deceased.

The following gentlemen are appointed to be members of the Hajepore Branch Road Cess Committee :—

Mr. G. Collingridge, Manager of the Singhia Factory, Lalgunge.
Baboo Doorga Pershad, zemindar of Mahuar.

The following notifications are re-published from the *Assam Gazette* :—

No. 182.—The 1st June 1883.—Mr. F. St. Clair Grimwood, B.A., c.s., Officiating Assistant Commissioner, second grade, is appointed to officiate as Deputy Commissioner of Lakhimpur, during the absence, on leave, of Major H. J. Peet.

No. 183.—Mr. S. J. Douglas, c.s., Officiating Assistant Commissioner, second grade, is placed, in charge of the North Lakhimpur sub-division, during the absence, on deputation, of Mr. Grimwood.

No. 188.—The 7th June 1883.—Mr. A. J. Primrose, c.s., Assistant Commissioner, second grade, is appointed to officiate as Deputy Commissioner of Kamrup, during the absence, on furlough, of Mr. A. C. Campbell.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

NOTIFICATION.

The 11th June 1883.—It is hereby notified for general information that the next Half-yearly Departmental Examination of Assistants and Deputy Magistrates in the Regulation Non-Regulation Districts, and of officers in the Police, Jail, Medical, Forest, and Opium Departments, will be held on Monday, the 5th November 1883, and following days.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

NOTIFICATION.

The 2nd June 1883.—The undermentioned Assistant Surgeons of the second grade having passed the prescribed examination are promoted to the first grade, with effect from the 1st May 1883:—

Assistant Surgeon Kasseo Chunder Dutt. | Assistant Surgeon Ram Chunder Gupta.

Assistant Surgeon Doorga Dass Roy.

The undermentioned Assistant Surgeons of the third grade, having passed the prescribed examination, are promoted to the second grade, with effect from the 1st May 1883:—

Assistant Surgeon Shib Chunder Bose.

Assistant Surgeon Ram Kali Gupta.

„ „ Chunder Mohun Ghose.

„ „ Umirto Lall Deb.

„ „ Abhya Kumar Sen.

„ „ Akber Khan.

Assistant Surgeon Mati Lal Mookerjee.

F. B. PEACOCK,

Secretary to the Govt. of Bengal.

NOTIFICATION.

The 11th June 1883.—In the exercise of the powers conferred on him by section 182 (c) of Act IX (B.C.) of 1880, the Lieutenant-Governor directs that all contributions payable by a Road Cess Committee, under sections 136 and 137 of the Act, on account of the Divisional Superintendent and his establishment, shall not be subject to the limitation imposed by section 135. Such charges shall be shown in all accounts kept or submitted by the Committee under a separate and distinct heading, "Establishment of Divisional Superintendent of Works."

COLMAN MACAULAY,

Secretary to the Govt. of Bengal.

NOTIFICATION.

The 13th June 1883.—It is hereby notified that the declaration published at page 396, Part I of the *Calcutta Gazette* of the 16th May 1883, regarding the acquisition of a plot of land required for the extension of Modhoo Roy's Lane, in the town of Calcutta, is cancelled.

COLMAN MACAULAY,

Secretary to the Govt. of Bengal.

NOTIFICATION.

The 16th June 1883.—It is hereby notified that the Commissioners of the Bali Municipality, in the district of Howrah, have at a meeting determined, with the sanction of the Lieutenant-Governor, to impose, within the limits of the said municipality, a rate, under section 77 (b) of Act V (B.C.) of 1876, on the annual value of all holdings situated within the municipality.

COLMAN MACAULAY,

Secretary to the Govt. of Bengal.

NOTIFICATION.

The 15th June 1883.—It is hereby notified for general information that the Lieutenant-Governor intends, if no valid objections shall have been raised within one month from the date of publication, to confirm the following bye-laws, which have been framed by the District Road Cess Committee of Dinapore under section 180 of the Cess Act, IX (B.C.) of 1880.

1. Whoever encroaches on any part of a district road by cultivating crops or otherwise, and the owner of any cattle found grazing within the boundaries of any such road, shall be liable to a fine not exceeding Rs. 10.

2. Whoever, without the special permission of the Chairman or Vice-Chairman of the Road Cess Committee, causes an obstruction to the traffic on any district road by cutting the same, wholly or partially, for purposes of the irrigation or drainage of adjacent lands, shall be liable to a fine not exceeding Rs. 10.

3. Whoever wilfully causes the destruction of, or damage to, any tree planted on a district road, or to any gabion erected for the protection of the same, or whoever removes any post erected on a district road, shall, when the act does not amount to an offence under the Indian Penal Code, be liable to a fine not exceeding Rs. 10.

COLMAN MACAULAY,

Secretary to the Govt. of Bengal.

[First Publication.]

NOTIFICATION.

The 19th June 1883.—The following sailing directions and Hydrographic descriptions of the port and approaches to Chittagong, and Hydrographic information regarding the Burabalang River, the roadstead of Balasor, and the Dhamra and Baitarani Rivers with the port of Chandbali, are published for general information.

BAY OF BENGAL—ORISSA COAST.

BURABALANG RIVER AND BALASOR.

V All bearings are Magnetic—Variations in 1883, 2° 40' E.

The following hydrographic information regarding the Burabalang River and roadstead of Balasor has been received from Commander L. S. DAWSON, R.N., in charge of the Marine Survey of India, 1883.

BURABALANG RIVER. literally "The Old Twister," rises among the Morbhanj Hills in latitude $21^{\circ} 24' N.$, and longitude $86^{\circ} 36' E.$, and after receiving two small tributaries, the Gangahar and Sunai, wriggles into the sea in latitude $21^{\circ} 28' N.$ and longitude $87^{\circ} 5' E.$ The tide runs up twenty-three miles. In the upper parts of its course the banks are sandy, steep, and cultivated; in the lower part, they are of firm mud, covered to high-water mark with black slime and surrounded by jungle or open grassy plains. Native craft and small sea-going steamers of nine feet draught can navigate as far as the town of Balasor, about sixteen miles up its twisting course, but the sand-bar across the mouth of the river renders the entrance difficult.

While inside Gymkhana bar, about a mile below Balasor, is an unavoidable obstruction, extending, as it does, between sand banks and carrying over it from one to two feet at low water.

The course up the river was formerly marked by beacons, but of recent years these appear to have been discontinued.

A project for rendering the course of the river shorter and more direct has been discussed, it being expected that such a measure would add to the tidal scour and deepen the channel over the outer bar, but the engineering opinion formed, however, did not permit any definite conclusion being arrived at, it being considered by some that the opposite results might thereby be caused.

A cut was made in 1863, shortening the course of the river by a mile, but no observations of the results produced were taken.*

THE COAST in the neighbourhood of the mouth of the Burabalang appears from the offing, sandy and barren, about four miles to the northward of the entrance. Sand hills of mottled grey and yellow colour will be noticed, while on the fringe of low sand hills to the southward of the river, and bordering the coast, Chandipore flagstaff, near a large white bungalow, can easily be recognized. A single palm tree, known to those who resort to the river, forms a good mark also; but it is difficult to detect by a stranger. It bears from Chandipore flagstaff $N. 44^{\circ} E.$, distant one mile seven cables nearly.

BALASOR ROADS, in about latitude $21^{\circ} 28' N.$, in the north-west part of the Bay of Bengal, are largely resorted to in the north-east monsoon by vessels bound to Mauritius and elsewhere for cargoes of rice brought down the Burabalang by large cargo boats. Sloops from the Madras coast and the Laccadive and Maldivé Islands also annually resort to Balasor port for the same cargo.

The largest native vessels which ascend to Balasor or receive their full cargo in the river are of about 4,000 maunds (145 tons) burden.

The best mark for making the anchorage will be found in the highest part of the Nilgiri Hills, situated about $15\frac{1}{2}$ miles inland, and bearing about $W.N.W.$

The holding ground is of stiff mud, and the best anchorage for a vessel of 20 feet draught will be found with Chandipur flagstaff bearing $N. 66^{\circ} W.$ Highest peak of Nilgiri Hills $N. 81^{\circ} W.$, and the single palm tree on the north bank of the entrance to the river, $N. 51^{\circ} W.$ This position will place a vessel about $5\frac{1}{2}$ miles off shore, and 2 miles 7 cables distant from the anchoring buoy in 4 fathoms at low-water spring tides.

BURABALANG RIVER ENTRANCE is 400 yards in width, and has a depth at low water of from 21 to 23 feet; but is almost closed by an extensive bar spread out between continuous banks of mud and sand,

having its northern limit at about half a mile south, and reaching as far southward and seaward as two miles from the river entrance.

BALASOR BAR had over it, in 1883, at low-water spring tide, two feet of water, and with a south-easterly wind, was observed to break right across. The last quarter flood-tide is the best time for crossing.

BUOYS.—In 1883, the following were the buoys with their respective positions at the entrance of the Burabalang River.

ANCHORING BUOY is a black beacon buoy with staff surmounted by a cage. On one side it has an anchor, and on the opposite side the letter B, both painted in white. The depth at low-water spring tides at this buoy is 18 feet, and it bears from Chandipur flagstaff on the sand hills bordering the coast on the south side of the entrance of the Burabalang River S. 53 E., distant nearly 4 miles. By noting the depth at the anchoring buoy and comparing with the chart, the depth on the outer bar and in the river generally may be ascertained.

A RED CAN BUOY termed the "outer bar buoy," is moored in 9 feet at low water, with Chandipur flagstaff bearing N. 53 W., distant 2 miles 4½ cables and single palm tree bearing N 16 W., distant 2 miles 8 cables.

A RED BUOY known as Elfin flat buoy, from the shoal ground it is intended to mark, in 1883 was moored in 4 feet at low water, with Chandipur flagstaff bearing N 70° W., distant 1 mile ½ cable.

A BLACK BUOY, termed the "inner bar buoy" is moored in 5 feet at low water, with Chandipur flagstaff bearing S. 72° W., distant 1 mile 2 cables, and single palm tree N. 1° E distant 8½ cables.

CHANDIPUR FLAGSTAFF bears S. 44 W., distant 1 mile 7 cables from single palm tree on the north bank of the Burabalang River. It is 60 feet high, and stands on a sand hill 53 feet above sea-level.

LIGHT.—A lantern, exhibiting a fixed white light, is hoisted on Chandipur flagstaff from sunset to sunrise; it is elevated 106 feet above the sea, and should be visible from a distance of 5 miles.

A TIDE GAUGE is placed 5½ cables westward of and inside the entrance of the Burabalang River; it is near the south or right bank of the river, and about a cable westward of it is the landing pier connecting with the road which leads to the town of Balasor.

DIRECTIONS FOR ENTERING.—From the anchoring buoy steer direct for the single palm tree on the north bank at the entrance of the Burabalang River on a N. 26 W. bearing for one mile 6 cables, or until the second red buoy from the outside, termed Elfin flat buoy, is seen just open northward of Chandipur flagstaff, with the latter bearing N. 68 W., when alter course for Chandipur flagstaff upon the bearing and with the red buoy just described left open. This will lead in the deepest water over the outer bar, care being taken, if the flood tide be making, not to be set to the northward of the leading mark.

When the inner bar buoy, which is black, comes in line with the single palm on the north point of the entrance to the river, alter course, keeping the two in line on N. 6° E. bearing and passing on the east side of the black buoy, after passing which, alter course to north by east or with the palm tree half a point on the port bow. This leads in the deepest water until abreast the single palm tree; the best course then along the first reach which trends about west by north, is at about a cable's distance from the northern or left bank until abreast Chota Ghira Point, which is 5½ cables westward of the house on the north bank known as Balramgari. At Chota Ghira Point the river takes a sharp turn to S. by E., and it is here advisable, if in a steam-vessel, to slow the engines and use plenty of helm.

The channel, after passing Chota Ghira Point, is near the east bank of the river; the western bank in this reach being low and swampy and fringed with jungle.

This second reach runs at first S. by E., gradually curving round to S. by W., and is 1½ miles in length. The central part is comparatively shoal, having depths extending for half a mile of 9 and 10 feet at low water.

The third reach turns gradually round a low tongue, and doubles back on the second reach, running for a mile north by east finishing by turning at right angles to the westward round Ghentee Point. The channel, which in the second reach and bend has been near the western and southern shore, or right bank, in the third reach changes to the eastern shore, or left bank. The southern part of the third reach has only from 9 to 10 feet of water over its southern part.

The fourth reach pursues a serpentine, but on the whole, westerly course, and at 7 cables westward of Ghentee Point is obstructed by the

Dinga bar, formed by a flat of sand extending from the southern shore more than half way across the river. Between this flat and the northern or left bank the depths at low water is from 6 to 7 feet; and here it is necessary to pick the way carefully by means of the lead, borrowing throughout in the fourth reach, after passing Ghentee Point, on the northern shore or left bank of the river.

Dinga bar passed, the channel changes over to the southern or left bank of the river, and has depths of from 14 to 22 feet, until the latter part of the fourth reach in the neighbourhood of Whoarguddee is approached, where depths of 10 and 11 feet will again be found unavoidable.

The country now, which so far has consisted on the right bank of an extensive maidan or grassy plain and on the left of jungle, opens out, and at Chargutia, just above Whoarguddee, has a considerable clearing for clay fields and rice cultivation. From thence onwards to Balasor, the land presents civilized features—rice fields, workshops, and huts for the Calcutta Coast Canal works meeting the eye from a vessel's deck.

JUNGLE POINT is the extremity of the peninsula, abutting into the land near Whoarguddee. The river takes a sharp trend to the eastward, its general direction throughout the next or fifth reach being E.S.E. for a mile and two cables, the northern part of this bank of the river washing the south shore of the part known as Chargutia. This, the fifth reach, carries in its deepest channel depths of from 9 to 12 and 18 feet, and the chart is the best guide to the navigator.

Rounding Chargutia Point somewhat suddenly the river now enters its sixth decided reach, which extends in a westerly direction for $1\frac{1}{2}$ miles, terminating at Buboor Point. The first part of the sixth reach has a north-westerly trend for six cables, where a detached sand bank, dry at low water, about three cables in length by half a cable in breadth, is situated, but is half tucked into a hollow in the northern bank. The depth of the navigable part of the river in the sixth reach is from 3 to 10 feet, the channel passing southward of the detached sand bank and then gradually crossing to the northern or left bank of the river. Above and parallel to the detached sand bank just described a finger-like sand bank runs in a westerly direction along the south or right bank, for a distance of nearly seven cables. The deepest part of the river in this part of sixth reach is mid-stream between the sand banks, and then towards the northern shore again crossing to the south shore or right bank, as Buboor Point is approached.

CANAL WORKS.—At $2\frac{1}{2}$ cables' distance eastward from Buboor Point, and on the south or right bank of the river, is the spot where the connection of the Calcutta Coast Canal with the Burabalang River is proposed to take place to the southward. The northern connection is intended to be at a position some $6\frac{1}{2}$ cables to the northward of Buboor Point, the Burabalang River between these points entering into, or forming part of, the canal. These works in 1883 were in an advanced state, and it is contemplated that when completed a canal connecting Calcutta and Cuttack will be formed having a minimum depth of 4 feet at low water and a bottom breadth of 50 feet.

Seventh reach maintains a northerly trend at right angles to sixth reach, and extends for a mile in that direction. A detached sand bank, 4 cables long north and south, by three-quarters of a cable broad, blocks up the greater part of seventh reach. On the east side of this sand bank is a narrow channel carrying three feet of water. The navigable channel, however, lies on the west side of the sand bank, and is about half a cable in breadth, carrying depths at low water of three and four feet. This part of the river is known as Buboor bar. On the eastern or left bank of the river, and near the northern end of seventh reach, it Nulcolee, the name given to the village which has sprung up around the works, houses, &c. of the Engineers employed on the Calcutta Coast Canal, excavations for which are taking place close at hand. Opposite to Nulcolee is Nudiapha Point, which is a considerable tongue protruding in a northerly direction. The river from seventh reach winds round it, assuming a south-westerly trend for a mile to Pukarabhar on the north bank opposite to the entrance of the old canal, which disembogues on the south or right bank, then a direction of west by north for seven cables to Gymkhana, and again a south-westerly trend for $5\frac{1}{2}$ cables, which brings a vessel to the point, known as Mahomed Pau, which is the last point before Balasor port is reached.

In the eastern part of this, the eighth reach, clay excavations and brick-making for the canal works appeared in full operation in 1883. At Pukarabhar, on the north bank, is a collection of houses backed by some tall trees, and to the southward at a distance of four cables from the river's bank is the bungalow of the Engineer in charge of the canal works.

CANAL ISLAND—So formed by the junction of an old and new canal, fronts the river forming the southern shore opposite to Pukarabhar.

Between Canal Island and Gymkhana on the north bank of the river narrows to a breadth of half a cable, and the channel continuing on the Canal Island, or south side of the river, for a distance of four cables westward of the south-west point of Canal Island, then changes to the opposite southern or left bank, continuing on that side until nearly abreast of Mahomed Pau Point.

Midway between Pukarabhar and Gymkhana, is the Gymkhana bar, consisting of sand, over which, at low-water spring tides, there is a depth of one foot only.

About two cables north-eastward of Mahomed Pau Point, the channel of the river changes over to the southern bank, and from this position on to the Custom House at Balasor, or a distance of three cables, continues near the Balasor or right bank of the river. Depths here will be found to vary between 10 and 22 feet at low-water spring tides.

SUPPLIES—Of fresh provisions for shipping may be obtained by special arrangement at Balasor, but in the absence of fixed demand there is no recognized source of supply.

FRESH WATER—The river water off Balasor at half ebb is fit for the purpose of drinking, being apparently sweet and clear.

BALASOR PORT—Is about three quarters of a mile in length and consists of that portion of the Burabalang River which fronts the town of Balasor. With the Custom-house bearing S.W. off Balasor 10 feet at low water may be relied on, but the river here is only half a cable wide and a vessel must moor head and stern. There are several awkward bars already described, of which that nearest Balasor, the Gymkhana, has only a foot over it at low-water spring tides.

TIDES—It is high water at full, and change off Balasor Custom-house at about XI hours. Springs rise 10 and Neaps 6 feet 6 inches. The stream of the ebb tide is felt for from 8 to 9 hours, and runs as much as 4 knots an hour; that of the flood is, however, feeble, averaging about half a knot an hour.

BALASOR—The chief town and head-quarters of the Balasor, district lies about 7 miles from the sea coast in a straight line and 16 miles by river. Established in 1642, Balasor was the site of one of the earliest English settlements in Eastern India.* The original factory at Pippli (1684) was afterwards transferred to Balasor owing to the silting up of the Subarnarekha River, on which Pippli was situated. Balasor began to decline in importance as its younger rival on the Hugli gradually grew from a cluster of mud huts into the Calcutta of India.

In 1708 the river was found blocked by a dangerous bar, and the town at that time was only four miles from the sea coast; it is now seven miles.

The French, Dutch, and Danes also had settlements at Balasor. Of these, the French settlement, consisting of 100 acres of land on the outskirts of the town, known locally as Farásh-dángá, remains, yielding a revenue of about £5 a year. The Dutch settlement lasted till 1824, and the Danish was ceded to the English in 1846.

The river has long since writhed itself away from the Dutch quarter, extensive rice fields now stretching between their factory site and the river bank.

TIDES—In Balasor roads the ebb tide sets to the south-west, flood to the north-east; at spring tides about 2 knots an hour.

It is high water at full, and change at the entrance of the Burabalang River at about 9.45. Springs rise 12 to 13; neaps 8 feet.

SUPPLIES—For vessels lying in Balasor roads can only be procured by special arrangement, either with the owners of the various cargo boats, or with the masters of the small steam-vessels which ply

* Acquired for his countrymen by Mr. Gabriel Broughton, Surgeon of the ship *Hopewell*, who, in 1640, successfully treated one of the ladies of the Bengal Viceroy's zenana (Statistical Account of Bengal, page 280, vol. XVIII).

weekly with Calcutta. The latter generally anchor to await tide near the anchoring buoy, giving opportunity for communication.

TELEGRAPH. The town of Balasor has telegraphic communication with Calcutta and Cuttack.

PILOTS. There were no pilots for the Burabalang River in 1883. No steam or other European vessels ventured across the outer bar except the two local trading steamers plying to Calcutta of 6 and 7 feet draught respectively. Shipping are supplied by the cargo boats which, as a rule, succeed in making their way down from Balasor on the ebb, and after awaiting a tide return on the ensuing flood.

CYCLONES. Balasor roadstead, from the position occupied in the north-west part of the Bay of Bengal, is exposed to the full brunt of the cyclones which, generated in the bay, and following a north-westerly direction, burst upon this part of the coast with great fury.

The severest disaster of this nature is recorded for the 31st October 1831. On this occasion the storm-wave, 7 to 15 feet in height, breached the trunk road to Calcutta at a point 9 miles from the coast as the crow flies. It was estimated that 26,000 persons lost their lives on this occasion. Cyclones also occurred on the 7th October 1832, 13th October 1848, 22nd October 1851, 1st July 1872, and 15th October 1874. Native craft approach the coast as near as high water will permit. Should a storm come on, it is said that they have little to fear. It is a fact notorious on the coast of Balasor road that, should doubt arise as to the possibility of weathering a storm, the best plan is to run a ship straight into the western part of the Balasor roads near Churaman, some 20 miles to the southward of the Burabalang River entrance, where the liquid mass of mud held in solution by the sea affords the best possible non-conductor to the violence of the winds and waves.

BAY OF BENGAL—ORISSA COAST.

Dhamra and Baitarani Rivers with the port of Chandbali.

The following hydrographic information respecting the above rivers and port has been received from Commander L. S. Dawson, R.N., in charge of the Marine Survey of India, 1883.

All bearings are Magnetic.—Variation in 1883, 2° 30' E.

THE DHAMRA or Dhumrah River, which empties itself into the western part of the Bay of Bengal, is the first and most important of the navigable rivers of Orissa, and forms the northern exit of the united streams of the Brahmani, Kharsua, and Baitarani rivers. It lies within the jurisdiction of the Balasor district. The inner bar of the river, which may be said to be the connecting link between the island of Kulibarj on the south and Kanika flat, part of which is always dry on the north, is constantly changing both in depth and position.

The outer bar, however, to the north of Shortt Island has across it two distinct channels, and maintains its position and depth of water.

In 1883 it appeared possible for a vessel of from 21 to 22 feet to navigate as far as the village of Dhamra, some miles above the outer bar, and for a vessel drawing 17 feet to proceed as high as Chandbali, which is the chief port of the neighbourhood, and situated on the north or left bank of the Baitarani River. Ships which can get within the outer bar find protection from the monsoons, but notwithstanding its excellence in this respect, owing to its distance from Cuttack or any large town, it has been less resorted to than False Point by European craft.

At one time it was contemplated to select the Dhamra as the channel by which the whole canal system of Orissa should enter the sea, but after investigation the preference was given to False Point harbour as the basis of operations on the seaboard.

The Dhamra River also divides the province of Phadrakh in Orissa from that of Jajpur in Cuttack. At a distance of about nine miles from its mouth, the Dhamra River branches into two considerable streams, that to the north, on the banks of which are situated the towns of Chandbali and higher up of Jajpur, is called the Baitarani River, and follows, on the whole, a westerly direction; that to the south is termed the Brahmani River. It takes a south-westerly direction, and is a means of communication with Cuttack. At about six miles above the Baitarani junction, the Brahmani River connects with the Mypurra,

and about three miles higher receives a considerable feeder in the Kharsua River, which again connects with the Baitarani above or westward of Jajpur.

APPROACHES.—In making for the mouth of the Dhamra River from the southward, caution is necessary to avoid the dangerous Palmyras shoals, which extend to a distance of $11\frac{1}{2}$ miles from this part of the coast, and are steep on their eastern face. If fine weather prevails, the discoloured water will be found to generally indicate the outside or eastern edge of the bank. Besides the Palmyras buoy moored in 11 fathoms, a somewhat ill-defined beacon may be noticed on Shortt Island; but the lead should be kept carefully going, and unless certain of position, no stranger should stand into less than ten fathoms. It is recommended that a vessel should either anchor or stand off the land, if overtaken by night when bound for the Dhamra, if Shortt Island beacon or either Palmyras or Kanaka buoys are not recognisable.

SHORTT ISLAND.—Is little more than an extensive sand bank shaped like a kite, the tail to the westward, and will be the nearest land sighted when entering the Dhamra River; $2\frac{1}{2}$ miles in length by $1\frac{1}{2}$ in its broadest part. It trends away to the westward in a succession of horn-like projections of sand, which cover in parts and are cut off from the island at high-water. Creepers and coarse grass cover the hillocks on the south side of Shortt Island, the highest of which is $1\frac{1}{2}$ feet above high-water spring tides.

WATER.—No fresh water can be obtained on Shortt Island; three wells have been sunk, the water in each case proving brackish. Young plantations of cocoanut and other trees have been planted, but with what success has not yet been ascertained.

BEACON.—On the western part of Shortt Island, at about 84 cables from the extreme point, is a beacon of bamboos surmounted by a black basket, the whole secured to an upright post formed of a wrecked ship's timber. The basket is 50 feet above high water, and can be discerned in fine weather from a vessel's deck at a distance of about 5 miles.

It is contemplated to build a light-house on the highest part of Shortt Island.

PALMYRAS POINT.—The south-east entrance point of the Dhamra River, bearing S. 82° W., distant $5\frac{1}{2}$ miles from Shortt Island beacon, is low, covered with dark jungle, and difficult to distinguish. The palm tree, which formerly grew upon it, and formed a useful mark from seaward, has recently fallen from decay.

The coast southward from Palmyra's point trends to the southward, and presents the same low jungle grown aspect: a considerable mud bank fringes the coast, which dries at low water as far seaward as a distance of two miles.

KALIBHANJ ISLAND.—Trending east and west, is $5\frac{1}{2}$ miles long by about $\frac{3}{4}$ in breadth, and divides the Dhamra River into two channels at about 7 miles from the bar entrances. The northern channel is the widest, and carries the deepest water. The woods of Kalibhanj Island, which is not inhabited, as well as the jungle of the country bordering both banks of the Dhamra River, abound with wild animals. Crocodiles are numerous, and will be noticed basking in the sun at low water on almost every sand or mud bank.

DHAMRA VILLAGE.—On the north or left bank of the Dhamra River, 10 miles above Shortt Island, consists of a few straggling houses. A Custom house is situated here, and a tide-pole indicates to those acquainted with the locality the depth of water likely to be met with on the Chandipal bar.

MATAI RIVER.—Which joins the Dhamra River at about a mile westward of Dhamra village, is about one cable wide and navigable at low water for craft of 8 feet draught.

The Matai River brings down the drainage of the country between the Kansbans and the Saladi, and after a tortuous course over a muddy bed, and between densely wooded banks, enters the Dhamra River near its mouth.

A canal unites the Matai with the Gammai; but an embankment has been built right across its mouth, and it has ceased to be used for traffic.

In the coast canal in course of construction to connect Cuttack with Calcutta, the Matai River is utilised as one of the natural connecting links, the junction occurring about 14 miles above the position at which the Dhamra and Matai rivers connect.

Native vessels plying to ports in the Madras Presidency resort chiefly to the Matai River for their rice cargoes.

NORTH CHANNEL INTO THE DHAMRA RIVER.—There are two channels into the Dhamra; of these, the northern channel, though carrying least water, is generally used, being most contiguous to Calcutta, to which port the steam-vessels visiting the river generally ply.

KANAKA BUOY.—Is a black wooden beacon buoy with the letter K painted white on it. It is surmounted by two circular discs placed vertically on a staff, which marks the north-east limit of the north channel, and is moored in a depth of 23 feet at low water, and bears from the Shortt Island beacon N. 12° E., distant $2\frac{1}{2}$ miles. Vessels should keep it on the starboard hand or to the northward of them when entering the Dhamra River, and the reverse when leaving. Latitude $20^{\circ} 49' 28''$ N., longitude $87^{\circ} 04' 40''$ E.

BUOY F.—Is conical, of iron, coloured red, surmounted by spire and basket of same colour. It is moored in a depth of 11 feet at low water, and bears from Shortt Island beacon N. 13° W., distant 1 mile $4\frac{1}{2}$ cables, and from Kanaka buoy S. 39° W., distant 1 mile 4 cables. It marks the western limit of the bar, which obstructs the north channel.

BUOY E.—Is black, of iron, surmounted by spire and basket of same colour. It is moored in 10 feet at low water, and bears from buoy F. S. 58° W., distant $8\frac{1}{2}$ cables. About two cables south-east of it, 12 and 13 feet of water will be found.

BUOY D.—Is a red, iron, conical buoy, moored in 16 feet at low water. To the northward, and between it and buoy E, the north and south channels converge, and here depths will be found at low water, of 14 and 15 feet, over a bottom of mud. From it Shortt Island beacon bears S. 86° W., distant 1 mile, and E buoy south, distant 1 mile. It is about two cables distant from the westernmost point of Shortt Island, the channel between, through which the tide sets with considerable strength, being deep and free from danger.

BUOY C.—Is a conical buoy, coloured black, surmounted by a staff, and is situated on the north side of the channel about midway between Shortt Island and Kanaka bank. It bears from Shortt Island beacon W. 2° N., distant 2 miles, and has the letter C marked on it in white.

BUOY B.—Is a conical red buoy, surmounted by a staff with a cage of same colour. It marks the south side of the channel southward of Kanaka bank, and bears from C buoy S. 76° W., distant 2 miles.

BUOY A.—Is a conical black buoy, surmounted by a staff with cage of same colour. It marks the north side of the channel southward of Kanaka bank, and bears from the highest part of the Kanaka bank S. 53° W., distant $\frac{1}{2}$ mile.

INNER BAR BUOYS.—Are conical can buoys: that on the south side of the channel coloured red, that on the north side coloured black. They bear from one another N. 21° W. and S. 21° E., distant $1\frac{1}{2}$ cables, and from Palmyras Point the south or red buoy N. 17° E., distant $5\frac{1}{2}$ cables; the north or black buoy N. 9° E., distant $6\frac{1}{2}$ cables.

Depths of 12 to 14 feet at low water will be found between the bar buoys just described.

From the inner bar buoys the channel, to abreast Dhamra village, continues clear of danger and without buoys. Vessels drawing 20 feet may reach as high as, and anchor off Dhamra.

The buoyage of the south channel into the Dhamra River will be next described.

PALMYRAS BUOY, which acts as a guide for vessels entering the Dhamra from the southward, as well as a mark for clearing the Palmyras shoals, if bound to Balasor or the entrance to the Hugli, is a large red beacon buoy with a broad white horizontal stripe, surmounted by a vertical staff and circular disc coloured red. It is moored in 11 fathoms at low water, and bears from Shortt Island beacon N. 73° E., distant 7 miles, and from Kanaka buoy S. 86° E., distant 6 miles 2 cables, or in latitude $20^{\circ} 45' 47''$ N., longitude $87^{\circ} 10' 55''$ E.

The south-eastern finger of the Palmyras shoals, having as little as 4 fathoms at low water, extends about a mile south-eastward of the position of the Palmyras buoy (1883).

The course from Palmyras buoy to buoy H, which marks the south side of the outer bar of the south channel into the Dhamra River, is S. 78° W., and the distance 6 miles.

From a ship's deck, when in the neighbourhood of Palmyras buoy, Shortt Island beacon can generally be recognised, and the

position, by cross bearings, of these objects can be obtained, and the direction in which the tide is setting noted, before the bar of the south channel is arrived at.

BUOY H.—Marking the south side of entrance over the outer bar of the south channel into the Dhamra River, is a conical buoy surmounted by a vertical staff, the whole coloured red. It bears from Shortt Island beacon N. 46° E., distant 1 mile $1\frac{1}{2}$ cables. The letter H is painted on it in white.

BUOY G.—Is a black wooden conical buoy, surmounted by a black cross. The letter G in white, is painted on this buoy, which bears N. 11° W., distant $8\frac{1}{2}$ cables from the beacon on Shortt Island. The depths found near G buoy at low water are from 14 to 16 feet.

About a quarter of a mile westward of G buoy the north and south channels into the Dhamra River meet, and the channel just here has a breadth of $3\frac{1}{2}$ cables, and in it depths of from 13 to 20 feet over a muddy bottom will be found.

DIRECTIONS, NORTH CHANNEL.—Pass close southward of the Kanaka buoy, situated in latitude $20^{\circ} 49' 28''$ N., longitude $87^{\circ} 04' 40''$ E., keeping a S. $58\frac{1}{2}^{\circ}$ W., course for one mile, then haul to the southward steering S. 23° W., 2 miles $3\frac{1}{2}$ cables, passing F buoy, which is red and conical, and surmounted by a cage on its western side, at a distance of $1\frac{1}{2}$ cables, and eastern buoy, which is black, at a distance of $3\frac{1}{2}$ cables, until Shortt Island beacon bears S. 70° E., when alter course to S. 59° W., which will bring G. buoy, which is coloured black, and is surmounted by a black cross right astern. Continue on this course for a distance of a mile and 2 cables, when D buoy, which is red and conical, will be seen open to the north of Shortt Island beacon, bearing N. 78° E., then steer for B buoy, which is red, and surmounted by a red cage, on a S. 86° W. course. Pass close northward of B buoy, and then strike across the channel on a N. 63° W. course for A buoy, which is black, with black cage. Pass close south of A buoy, and thence for the northern buoy of the inner bar, which is a black can buoy, on a course of N. 88° W., which will lead over the inner bar in a depth of 13 feet at low water, and close south of the black can buoy.

Having passed the inner bar, edge away on a S. 72° W. course for the east point of Kalibhanj Island for about 9 cables, or until Chandpal tree on the north bank of the river, which has a triangular cage-beacon protruding from the south side of its branches, bears N. 31° W., when alter course for the perch on the north side of Kalibhanj Island, steering N. 86° W. This perch, which is a basket on bamboos, forms a distinct mark, and may be passed at the distance of a cable. Continue after passing Kalibhanj perch on the south side of the channel, keeping the north shore of Kalibhanj Island about $1\frac{1}{2}$ cables distant, until Dhamra village bears N. 42° W., when it should be steered for, the deep water now changing to the north side of the channel.

ANCHORAGE—May be found with Dhamra village, bearing north, in from 20 to 24 feet at low water, at a distance of $1\frac{1}{2}$ cables, from the north bank, on which the village is situated.

This is the anchorage for large vessels.

CAUTION. It is not advisable for any vessel drawing more than 14 feet to navigate beyond Dhamra, but at high water, with the aid of a pilot, draughts of 17 and 18 feet may continue as high as Chandbali or the Baitarani River.

It being desired to continue to Chandbali or Mahurigaon, higher up the Dhamra, bold water will be met with at a cable's distance from the north bank of the river from abreast Dhamra village and for about $1\frac{1}{2}$ miles westward of the mouth of the Matai River, when the neighbourhood of the Celerity spit, which is marked on its south side by a black can buoy, which joins the bank extending from the western extremity of Kalibhanj Island, will be reached, and the perch on Round Point, on the south side of the river, is sighted.

If the Celerity bar be crossed at a distance of 4 cables from the western extreme of Kalibhanj Island, the west depth found at low water will be 10 feet. The southern or right bank of the river should then be steered along at a distance of $1\frac{1}{2}$ cables, the black can Celerity buoy being passed on its south side at the distance of a cable, and the basket perch on Round Point kept on the port bow. Continue thus until MacMaster's mark, which is a tall white flagstaff surmounted by a basket, and the three red buoys, which denote the turning into the Baitarani River.

Keep these three red buoys successively on the port hand at half a cable's distance, rounding gradually for the inner or western part of north point, which is steep too.

BAITARANI RIVER.—Identified by the Brahmans as the Styx of Hindu mythology, but possibly a corruption of Avitarani, meaning "difficult to cross," enters the Balasore district at the village of Batipur, and flows for about 45 miles in a south-westerly direction till it joins the Dhamra five miles from its mouth. The Baitarani forms the boundary between Balasore and Cuttack. It is nowhere fordable during the rains, but can be crossed everywhere in the dry weather above Olokh, about 15 miles from its mouth. At Olokh it ceases to be navigable, and the tide does not run above this place. It receives two tributaries on its Balasore side, the Salandi and the Matai: the former, properly called Salnadi, takes its name from the *sal* forests which it traverses. It rises on the southern slope of the Meghasani mountain, literally the "seat of clouds," in Morbhanj, and throughout its upper course, is a black water river, with high banks and a bottom of muddy sand.

In January it scarcely anywhere exceeds three feet in depth. Luxuriant vegetation clothes its banks, which in certain places almost become cliffs, and for miles the river runs through groves of mangoes, palms, and bamboos. It forms no islands or lakes, and has no tide; but it is navigable for country boats as high as six miles from its junction with the Baitarani. Its lower course bifurcates into a network of streams, which are interlaced with those of the Matai.

The country in the neighbourhood of the banks of the Baitarani becomes more open, and is largely cultivated with rice, the jungle which marks the banks of the Dhamra being lost sight of.

Between the entrance of the Baitarani and Chandbali there are 15 villages, but none of these are of an important character, nor present any feature for the guidance of the navigator, the first conspicuous house being the travellers' bungalow at the east end of Chandbali.

The entrance of the Baitarani is split into two channels by Lucheenarain Island, which is about $\frac{1}{2}$ mile in length by $\frac{1}{4}$ of a mile in breadth. Of these the northern is the navigable channel carrying depths of 20 feet at low water mid-channel. The southern channel is shoal and only available for boats.

In the south channel from abreast north point a mid-channel course should be steered until abreast the second creek, which flows into the Baitarani from the northern or left bank.

A WHITE WOODEN CROSS, conspicuous and easily discovered, is situated near the mouth of the second creek just alluded to. Allowing for the bend of the river, its distance is about $1\frac{1}{2}$ miles from north point, and it is erected as a crossing mark for the Jhuta bar, which is the next shoal part of the Baitarani River.

CROSSING MARKS.—On the eastern or right bank, consisting of a cage beacon on a pole amongst the trees, for the southern mark, and a black barrel fixed upon a pole a little more than a cable to the northward of the cage beacon, are used for crossing the Jhuta bar.

JHUTA BAR.—Is an underwater continuation of the west point of Lucheenarain Island (which divides the entrance of the Baitarani River into two channels) with Pilot's Island situated in the Baitarani about half a mile to the southward. A depth at low water of from 8 to 9 feet may be found in the Jhuta bar.

TO CROSS.—The basket or cage amongst the trees kept just open westward of the barrel upon pole, previously described, on Point Douglas, and kept on a bearing of S. 18° E. will lead across the Jhuta bar in about nine feet at low water, with the white wooden cross in the north bank seen right astern.

PILOT ISLAND.—Southward of the Jhuta bar is low and overgrown with grass and creepers extending $11\frac{1}{2}$ cables in a north by east and south by west direction. Considerable sand flats extend from its north and south points, and between it and the western, or left bank of the Baitarani River, is a narrow boat-passage known as "Chapman's gut." The navigable channel which carries from 17 to 23 feet of water, lies between Pilot Island and the eastern bank of the Baitarani, the best track being nearer to the eastern bank. This part of the river is known as Pilot's Reach, and a black can buoy marks the south-west extreme of the spit extending to the south-westward from Pilot Island.

From the black can buoy just mentioned, which is situated near the western end of Pilot Reach, the river turns at right angles round a

(tongue-like projection known as Palmer Point. On the western side of this part of the river is a sandy island terminating at its southern extremity in mud, termed Sickle Island. Between Sickle Island and the western or right bank of the river is a narrow boat-passage, available at quarter flood.

A RED CAN BUOY marks the western limit of Sickle Island. The navigable channel, which is about a cable in breadth and carries 25 to 27 feet at low water, lies close to the eastern or Palmer Point side of the river, and curving gradually to the westward changes over to the opposite or southern side at Sickle Point, which forms the eastern boundary of the next known as Long Reach.

LONG REACH—Runs in a westerly direction for about two miles and around Borarrish Point, which is low and swampy. The upper or northern part of Long Reach terminates in Hurripur bar, having on it eight to nine feet at low water.

The channel in Long Reach lies within half a cable of Sickle Point, and along the southern bend at about the same distance from that shore. As Long Reach trends to the northward, the channel shallows from 26 to 17 and 14 feet, gradually crossing to the eastern bank over the Hurripur bar, which is $3\frac{1}{2}$ cables wide, and has on it from eight to 10 feet of water.

HURRIPUR REACH—Has a northerly trend, and carries from 14 feet on the eastern side of its channel just northward of Hurripur bar to 20 and 25 feet higher up or farther north. The deepest water in this reach lies about mid-stream. The latter part of the reach trends gradually to the westward round Love Point, towards which the deepest water lies.

LOVE POINT BAR—Extends throughout almost the whole space between Love Point and Chandbali, and in the shoalest part of its best water carries from 7 to 8 feet at low water. A course of $W \frac{1}{2} N$. for 11 cables from Love Point leads in the deepest water at about a quarter of a cable from the southern or right bank up Love Point Reach, until travellers' bungalow bears north distant about a cable.

The three piers of Chandbali may now be distinguished, and anchorage picked up as convenient, in from 22 to 30 feet off the town.

CHANDBALI—Situated on the north or left bank of the Baitarani, about 30 miles by river track from the Kanaka buoy, on the outer bar of the Dhamra, is nevertheless considered within the limits of the port of Dhamra. The station is situated on a narrow sand ridge, which trends north and south, or parallel to the direction of the sea-coast, terminating abruptly on the northern bank of the Baitarani River. Of late years it is said to have risen in importance, and to have an improving trade. There is a police station, travellers' bungalow, and Customs office with Warehouse and three landing piers.

There is weekly communication with Calcutta by steamer and with Cuttack twice a week. Native sailing vessels do not, however, as a rule, frequent Chandbali, preferring the Matai River, a tributary of the Dhamra, for picking up their rice cargoes, to the Baitarani, the Matai affording greater advantages in its long course through a rice-producing tract.

The travellers' bungalow, a conspicuous white house with verandah, is the first house seen in Chandbali when ascending the river; it stands close to the water's edge on the north or left bank of the river clear of any trees.

BUOYS.—There are buoys off Chandbali for the use of the local steam-vessels in hauling out into the stream from their respective piers off Gwire Point, at the western extremity of the reach, in which Chandbali is situated.

PROVISIONS—for Europeans, are scarce, and can only be procured with difficulty at Chandbali.

TRADE—The export consists almost entirely of rice. Large numbers of coolies are brought as passengers from Calcutta by local steam-vessels, for employment in the rice fields at certain seasons of the year. In this respect brisk competition goes on. A portion of the passengers are pilgrims on their way to and from Jagannath. These pilgrims are generally up-country people of the middle class, who can afford to pay their fare by rail to Calcutta, and by steamer to Orissa.

GWIRE POINT.—A sharp tongue on the south side of the river, opposite to, and about half a mile above or westward of, Chandbali terminates Love Reach. Here the river turns sharply to the south-east, and continues navigable for the same draught of water that has reached Chandbali for two miles.

A RED BUOY.—marks the termination of the shoal water off Gwire Point, and in ascending the river, should be kept on the port hand.

MAHURIGAON.—Situated 2 miles above Chandbali, but on the opposite side of the river, was formerly of some importance as a halting station for a line of steam-vessels owned by a native firm at Calcutta, but of late years it has fallen off in importance, and the only form of communication in 1883 was by native boats.

BAY OF BENGAL—EAST COAST.

MEGHNA RIVER.

Bearings Magnetic Var. 3.

REPORT of H. B. Simpson, Esq., Assistant Superintendent 3rd grade, Marine Survey of India, on an examination or running survey made of part of the Rivers Meghna and Shahbazpur in February-March 1883, when detached from the I. G. surveying vessel *Investigator* under Commander L. S. Dawson, R.N., in charge of the Marine Survey of India.

RIVER MEGHNA.—*From Sandwip Channel to Nārāyanganj.*—In carrying out this examination of the Meghna, the G. T. Hill station of Sitakund, northward of Chittagong, was taken as the starting point, bearings being obtained as long as Sitakund was visible, and when that was lost sight of, stations, six in number, fixed astronomically, were used, the longitudes being determined by a chronometer, the error of which was ascertained both before leaving and after returning to Chittagong, and points were cut in by a round of angles taken at the mast-head of the cutter.

The soundings were obtained from a pilot cutter, on the upward route; lines also being run across at the first three stations in the Sandwip channel by a steam cutter, and zig-zag lines were run on the downward route by the steam cutter from Nārāyanganj as far as Noakhali creek. A whale boat was also used in some of the narrower channels.

The soundings are reduced below the lowest depths obtained at low water at the different stations, the depth being taken every half hour alongside the pilot cutter, the moon's age being taken into account, and are only approximate.

The strength of the tide was taken by the hand log (at the station off the island of Bidoo, at springs, five days after change of the moon, the tide ran five knots and was considerably stronger in the middle of the channel).

The soundings are approximately fixed by bearings of points, mast-head angles of the pilot cutter, and distances by patent log.

Sandwip Channel above Fenny River.—Depth of water on bar off island of Bidoo seemed about four feet, with a rise of sixteen to eighteen feet at springs, with very strong tides, 5 to 6 knots, and the native craft only work on the neap-tides during the rains, as anchors will not hold in the ebb at springs.

The channel used is about a mile and a quarter off the north-east side of the island of Bidoo leading across to the village of Chiringa, close along the south side of the new *char* formed on the north side of the river in a W. N. W. direction. There is another channel close to the north bank from Fenny River to Chiringa to the north of the new *char*.

The second bar is between the island of Bidoo and the village of Chiringa, with about seven feet and a rise of fourteen.

The banks on both sides are much cut away by the stream, the north above Chiringa and the south at Bidoo and Siddhi, the noise of the mud falling into the water being heard at short intervals throughout the night.

The bank at Chiringa is steep, with deep water close in, and the native vessels lie at anchor here in six fathoms out of the tide.

From Chiringa to Noakhali Point the channel lies close to the north bank in a S.W. by W. direction, with a breadth of four cables and deep water. The bank is grass-land, without any trees, from a little west of Chiringa, a solitary tree standing on the southernmost part of the bank near Noakhali Point, but it will most likely soon fall into the river from the cutting away of the bank.

At Noakhali Point is another bar with twelve feet and a rise of about ten feet. The river here turns to the north-west.

Noakhali Point to Narnak Chur.—The channel lies close to the east bank with good depth, about five cables wide, as far as two palm trees standing close on the bank, bearing from the north point of Narnak char about N. 72° E., towards which it crosses with a depth of about sixteen feet and a rise of about nine feet springs. The stream is not so strong here as in the Sandwip channel, and at ebb tide neaps the water was perfectly fresh alongside.

Two new char have formed in the lower part of this reach.

The east bank is grass-land close to the river, some distance in, clumps of trees grow, and a mosque is visible at intervals, the position being about 22° 46' N 91° 00' E two miles from the bank.

The west side of the river is scarcely visible, from the east being the Island of Hatia.

Above Narnak Char (pronounced Lallan chur by the natives) the channel has twenty feet for nine miles. Direction about N. by W. ½ W., and lies near the middle of the river towards the west bank;

The river trends to the north-west from the mouth of the Ilsa to the Nowa Bhingree, then north to the mouth of the Pudda.

abreast of and beyond the Ilsa River, as far as the mouth of the Pudda, there is good water, the channel lying close to the west bank. Beyond Aboodu Point on the eastern side a sand extends from the bank to nearly the middle of the river.

The west bank is covered with thick jungle from Shahbazpur River to within a mile of the mouth of the Pudda.

Off the Pudda, the mouth of which is ill-defined, about eighteen feet is found. From this to the first char above Chandpur there

From the Pudda to Chandpur N. E. by E., then N. and W.N.W.

is deep water; running out from these chars are shoals with channels in between.* Above the last char the channel is wide and deep, direction

about north, as far as the mouth of the river leading to Daudkandi, where it again shoals to about twenty-two feet.

After passing the last char above Chandpur, Rajbarree temple comes in sight on the west bank; it is situated four miles from the river, and is a conspicuous mark.

The west bank is almost without jungle from the mouth of the Pudda, and numerous villages are seen. The east bank is covered with jungle, more or less, from a short distance below Chandpur.

From the mouth of the Daudkandi river the eastern channel is deep as far as the mouth of the Luckia River a branch of the Dullesury (on which Narayanganj is situated), where there is a bar with about 18 feet and a rise of 2 feet.

The western of the two channels formed by a char about two miles in extent, has a depth of about seventeen feet at the upper bar which is the shoalest. Above this the Dullesury River by which Narayanganj is reached leaves the Meghna.

Off the town of Narayanganj, the river is deep on the west side (next the town) with a breadth of one and a half cables.

SHAHBAZPUR.—River leaves the Meghna immediately above Narnak char, and flows between the Falcon char, Hatia, and Dakhin Shahbazpur. A bar is found close to the entrance at the north side of Falcon char, with about fourteen feet and a rise of nine feet. Beyond this is deep water as far as Shahbazpur Point, below which another bar is found with fourteen feet, and a rise of twelve to fourteen feet might be counted on, but no observations of the rise and fall were got. From this bar to seaward a channel is shown on the Admiralty Chart entering the Bay of Bengal to the westward of the D'Apree Shoal, and this seems a better approach to the Meghna than by the Sandwip Channel, but is never used.

The passage through the Hatia char, said to be used by the native brigs, is never used, and does not seem to be known by them, and is only used by row boats carrying passengers from the surrounding districts to Chittagong. The banks in it seem very much cut away by the stream, and it must have a considerable rise and fall to a good depth at high water.

The land seems to have altered considerably where this river leaves the Meghna since 1841, the date of Captain Lloyd's chart, but is much the same as the revenue survey map of 1865 gives it.

The approaches to the Meghna by the western, or Shahbazpur river would be out of sight of land for the first 20 or 25 miles, except having the D'Apree Shoal (dry at low water) about five miles from its mouth, where a beacon could be placed, and would require to

* This part of the river differs very much from Laycock's chart.

be marked with buoys, but the changes would probably be less frequent than in the Sandwip Channel.

A survey of the river from Naráyánganj to the sea would probably not repay cost for a considerable period; but a survey of the worst parts might show that vessels of large draught could pass up and down, as native craft drawing ten to twelve feet pass up and down continually by the Sandwip Channel with very small means of navigating and no special marks for channels, working almost entirely by the tide.

The worst parts of the Meghna are the northern portion of the Sandeep Channel as far as Noakháli Point, the crossing at Narnák char as far as the Ilsa River, off the mouth of the Pudda between the chars above Chandpur and the mouth of the river on which Naráyánganj is situated.

The worst parts of the Shahbazpur River are the bar at the northern end, the one below Shahbazpur Point.

WINDS AND WEATHER.—During the month of February the winds were northerly, light, with clear weather; towards the end of the month the sky became cloudy, and S.E. squalls, with thunder and lightning, continued for some days.

The weather was cool and pleasant during the whole month.

SUPPLIES.—As the inland steamers from Calcutta to Assam pass up the Meghna, supplies of any sort could be easily procured, and daily postal communication is carried on with Calcutta.

TOWN OF NARAYANGANJ.—On the west bank of the Luokia River, is of considerable size, with several mills and jute presses, the preparation and transport of that article apparently being the chief trade.

A great part of the jute is taken to Chittagong for shipment by native brigs of which there are a large number loading and moving up and down the river, the inland steamers and flats carrying as much of it as is shipped at Calcutta.

Hydrographic Notice.

BAY OF BENGAL

THE following information relating to the coast and port of Chittagong in the north-east portion of the Bay of Bengal has been received from Commander L. S. Dawson, R.N., in charge of the Marine Survey of India:—

ST. OF CHITTAGONG.

[All bearings are magnetic.—Variation in 1883 20° 50' easterly.]

APPROACHING CHITTAGONG.—Whatever the state of the weather or time of the year, but more especially during the south-west monsoon, or from April to September, the greatest care is necessary in making the mouth of the Karnaphuli, better known as the Chittagong river.

It should be remembered that the tides within 15 miles of this part of the Bay of Bengal set up and down, or in line with the trend of the land, and at springs run five and even six knots an hour. Vessels have been known, in hazy weather, to have been swept past Chittagong by the flood tide, and set upon the sands westward of Sandwip Island, without sighting either Kutabdia Island light by night or the land by day.

The tides at about from 20 to 50 miles from the coast are reported, however, to show a circular tendency, as at the Sandheads of the Hughli River, for the flood tide commences at east-south-east round by south, ending at west-south-west; and the ebb, beginning at west-north-west, works round by north, and ends at east-north-east.

During the south-west monsoon the strong southerly current met with in the Bay of Bengal may be expected, as the coast is closed with, to increase in strength, owing to the heavy outpour from the Meghna and other large rivers, which enter the sea northward of the Karnaphuli or Chittagong River.

Endeavour should be made, in nearing the land, if proceeding from the southward, to obtain soundings in about latitude 21° 10' north, longitude 91° 10' east, where the depth at low water will be found to be 10 fathoms, and the bottom soft mud. Even if the weather be favourable for observation, and the Commander of a vessel confident as to his astronomical position, strict attention to the depth of water as well as frequent attention to the course

and distance made over the ground, ascertained by making use of the ground log,* will yet be advisable.

The course from the position just given to the entrance of Karnaphuli or Chittagong river is north-north-east $\frac{1}{2}$ east, and the distance 70 miles. If possible the land should be made in the day time, a night land-fall being rendered unadvisable, not only on account of the off-lying dangers consisting of the Dolphin shoal and north and south patches, the approach to which is not indicated by the soundings, but also on account of the light exhibited at Kutabdia Island being sometimes shrouded by fog and rising mist.

If in doubt as to the position, and the ground log denotes a strong flood tide, it will be well to anchor to avoid being set to the northward on to the tails of the shoals extending from the south end of the Sandwip Island and the entrance to the Meghna River, which are said to extend further south than the chart indicates.†

KUTABDIA ISLAND, or Kutubdeciah, is the westernmost land fallen in with when approaching Chittagong.

It is 12 miles long north and south, by from 4 to 2 miles in width, and is pear-shaped, and although low and level, covered with trees and distinguishable at the distance of seven or eight miles.

Kutabdia, until recently, has been protected by artificial embankments from the encroachment of the sea, but owing to reports that the island is sinking and difficulties in maintaining the necessary repairs to these embankments, any further work in connection therewith has been discontinued, and consequently the island is now almost devoid of inhabitants.

LIGHT.—Near the western extreme of Kutabdia Island, or in latitude $21^{\circ} 52' 30''$ north, longitude $91^{\circ} 50'$ east, is a masonry tower 111 feet in height, from which is exhibited a fixed white‡ light at an elevation of 126 feet above high water, which should be visible from a vessel's deck in clear weather at a distance of 18 miles. The light tower has its lower storey coloured grey, and the upper part coloured alternately in red and white horizontal bands.

From the 15th of May to the 15th of September (both days included) a blue light is burnt from the top of Kutabdia Light-house hourly between 7 P.M. and 5 A.M. inclusive. The glare of this blue light should be detected at a distance of 20 miles.

SOUTH PATCHES, 13 miles from the nearest land and 15 miles south-west of the south point of Kutabdia Island, consist of three distinct heads of hard sand extending in a north and south direction, the northern and middle of these heads, having respectively $2\frac{1}{2}$ fathoms and 3 fathoms over them, are connected with one another, and are about $1\frac{1}{2}$ miles apart. The third or southernmost head has over it $4\frac{1}{2}$ fathoms at low water, and is $2\frac{1}{2}$ miles distant from the middle head. In fine weather rollers may generally be seen near the south patches, and in a fresh breeze the shoaler parts are reported to have breakers upon them.

Around the south patches and close to will be found depths of 9 and 10 fathoms, muddy bottom, and it is reported that with southerly winds a heavy breaking sea churns up around these formidable dangers.

A WHISTLING BUOY, conical, of iron, and painted red, is moored in 10 fathoms at low water, a quarter of a mile is west of the northern head or shoalest part of the south patches, or in about halfude $21^{\circ} 32'$ north, longitude $91^{\circ} 38' 30''$ east.

This buoy can be seen from a height of 20 feet at a distance of 4 miles, and with a moderate sea the sound of the whistle has been reported audible at the same distance.

NORTH PATCHES cover 12 miles in a north and south direction, extending southward in a broken tongue for that distance from a position about 3 miles westward of the south point of Kutabdia Island. The depth of water in the north patches varies from $\frac{1}{2}$ to $2\frac{1}{2}$ fathoms, and the bottom is of hard sand.

A channel about three-quarters of a mile wide, having from 9 to 16 fathoms of water runs up inside the north patches, or between these dangers and the sands extending off the south end of Kutabdia and westward from Maskhal Island. The tide rushes with great velocity through this channel, and without local knowledge it is better not to attempt it.

DOLPHIN SHOAL is one of the terminations of the shoal tongue running southward of Sandwip (Sundeeep) Island. It is about 2 miles long north and south by half a mile in width, and has over it a depth of three-quarters of a fathom at low water. Between Dolphin shoal and the west side of Kutabdia Island, the channel is 3 miles wide, and carries depths of from 6 to 7 fathoms of water.

* Similar to the hand log, except that a lead is used, instead of a log-sheep, which former reaches the bottom. By noting the direction of the line as well as the knots run out, the actual speed and course of the ship over the ground, and not through the water only, is thereby ascertained.

† In 1882 the ship *Macbeth*, through an error in reckoning, was set on to D'Après Shoal, and became a total wreck.

‡ The light apparatus used in Kutabdia light-house is an 8-reflector lantern. It is probably the oldest of its sort in use on the coast of India.

A **BLACK SPIRAL BUOY**, surmounted by a cage, is moored in 5 fathoms at low water off the west side of the Dolphin Shoal. From it Kutabdia Light-house bears east, distant 4 miles.

SANGU (SUNGOO) RIVER* the entrance of which, though almost filled up with sand banks at low water, appears at high water, when these banks are covered, to be about 3 miles wide, enters the sea 13 miles northward of Kutabdia Island Light-house, the coast between being low and without distinguishing marks.

The Sangu River is navigable for large cargo boats for 13 miles from its mouth throughout the year, and connects higher up with the Karnaphuli, on which Chittagong is situated, by a channel, which is partly of artificial origin.

NORMAN'S POINT.—The north entrance point of the Sangu River, is broad and flat, and fringed with extensive sand flats, and trending gradually to a bearing of north by west and north, forms the eastern bank of entrance to the Karnaphuli River. Norman's Point, about 6 miles northward of the entrance of the Sangu, terminating the sandy sea-face, for from Norman's Point to the northward extensive flats of mud stretch out into the Karnaphuli River. Embankments are constructed on the face of Norman's Point above high-water mark to protect this part from inundation. Numerous small villages here dot the coast at about half a mile distant from the grass-grown embankment alluded to.

A considerable creek, navigable by large boats, enters the Karnaphuli Point on its north bank, and near the mouth is an extensive village, and about half a mile to the eastward a second village, with a large conspicuous tree near its western end.

LIGHTS.—About $1\frac{1}{2}$ mile southward of Norman's Point, supported on white wooden tripods, are two *fixed white* lights elevated respectively 40 feet and 84 feet above high water, and bearing from each other north-west by west $\frac{1}{2}$ west and south-east by east $\frac{1}{2}$ east, 40 yards apart. They should be visible at a distance of 7 miles, but only between the bearings of north-north-west through west to south by east, as seen from sea-ward. These lights can generally be made out before that of Kutabdia Island becomes loss to view.

It is contemplated to replace the lights upon Norman's Point by a masonry light tower of greater elevation, and showing a dioptric light of greater power.

PATUNGA POINT is low and flat and ill-defined, with but few trees. An extensive maidan or grassy plain extends some miles inland from its blunted southern point, and a good-sized flag-staff, situated about the central part of the high-water line, edging the mud flat of the point, affords a good mark. It bears from the highest or easternmost light tripod in Norman's Point north 13° west, and from Joodia Hill flagstaff south 84° west.

Villages exist near Patunga Point, and herds of cattle are constantly seen grazing in the grassy flats of the vicinity.

The coast from Patunga Point northward preserves a low unbroken aspect, trending north and forming the eastern shore of the Sandwip Channel. Extensive white sand beach borders the coast, and at about $2\frac{1}{4}$ miles northward of Patunga flagstaff, Mahesh-khali Creek, which joins the Karnaphuli River below Chittagong, enters the sea.

THE KARNAPHULI RIVER, or Kynsa Khyoung,* as it is called by the hill people, is the most important river in the Chittagong district, or the country comprised in the long strip of coast extending between the Bay of Bengal and the north Arrakan Hill Tracts. It rises in a lofty range of hills to the north-east, and after pursuing a tortuous course through the hill tracts enters the district of Chittagong at the village of Chandraguna.

As far as Kasalang, or a distance of 100 miles from its mouth, the Karnaphuli River is navigable throughout the year for boats of 4 tons burden. About 20 miles above Kasalang navigation is stopped by a succession of low falls and rocky slopes about a mile in length, known as the Barkal rapids. Above Barkal, the stream narrows as it enters the higher ranges, its course being north for some distance until the Demagiri falls, some three days' journey from Barkal are reached, above which the river becomes an insignificant stream, with rocky beds, and only navigable by the smallest canoes.

The chief tributaries are the Kasalang, Chingri, Kaptai, and Bankheong rivers, of which the two first are navigable by boats for about three days' journey above Barkal.

Below the Barkal falls the Karnaphuli flows in a bed composed of mud and sand, and its banks, covered with jungle, rise to a height of 60 feet. As far as Kasalang, or about 100 miles from its mouth, the tide is felt, and except during the rains, when the current is very rapid, its flow is sluggish.

The lower part of the Karnaphuli is better known as the Chittagong River.

* Strangers are reminded that the Karnaphuli River entrance may be distinguished from that of the Sangu by the flagstaff and semaphore on Joodia Hill, the light tripods near Norman's Point, and the flagstaff on Patunga Point, on the north bank of the Karnaphuli.

* Statistical Account of Bengal, vol. VI, p. 25.

THE BAR of the Karnaphuli or Chittagong River extends completely across the river's mouth, and for 8 miles in a north-east and south-west direction, or from immediately abreast Jooldia Hill and flag-staff inside, the river, to $1\frac{1}{2}$ miles westward of Norman's Point near the entrance. The depths on the bar and in the best channel in April 1883, varied from 9 to 17 feet at low water. The shoalest parts are those at the south-west limit, where from 9 to 10 feet will be found at low-water spring tides, immediately between the two outer buoys which are coloured, the northern one red and the southern black; and at about 2 miles inside the outer edge of the bar, or south-eastward of Patunga flagstaff, where from 10 to 11 feet must be expected at low water.

Observations taken in the *Investigator* tend to show that the outer shelf of the bar, which drops suddenly from 10 feet to 4 and 5 fathoms, is most liable to change, being affected and slightly altered by each spring tide. Nor is the reason far to seek. The rapid tides of the Sandwip Channel, taking a northerly and southerly direction and impinging upon its protruding lip, scour hollows upon the comparatively shallow surface, most marked when aided by a strong south-west wind and sea.* The depth on the bar, however, does not appear of late years to have decreased—a reliable chart by Captain R. Lloyd, R.N., showing, in 1840, a depth of only $7\frac{1}{2}$ feet at certain positions on the outer part. In strong south-west winds a confused and dangerous sea breaks all over the outer part of the bar.

The best time for vessels to cross the bar is at slack water of high tide, and next to this on the first of the ebb. The tides set across the outer part of the bar, the flood to north-north-west, the ebb to south-south-east. At springs the flood tides run very strong, and are apt to sweep vessels to the northward and westward of the entrance to the river.

A draught of 22 to 23 feet by steam-vessels, or vessels towed in moderate weather during the height of spring tides may cross the bar at any season of the year. The best class of vessels, more especially during the south-west monsoon, for the trade of Chittagong, are those between 600 and 700 tons.

Sailing ships are sometimes detained on leaving the river during the south-west monsoon for want of a favourable wind. This may generally be expected at night in the shape of a land breeze from the northward.

BAR BUOYS.—In 1883 six large can buoys surmounted by baskets, marked the channel entrance to the Karnaphuli or Chittagong River: those on the western side of the channel coloured red, those on the eastern side coloured black.

From the outer red buoy, Patunga flagstaff bears N. 46° W. Mag distant $1\frac{1}{2}$ mile, and from the outer black buoy, the highest or eastern light-house on Norman's Point bears south 46° east, distant one mile and seven cables.

CAUTION.—The two outer buoys are liable to be washed away as the tide sets fiercely past them, and they are exposed to a chopping sea.

WESTERN ENTRANCE LEADING MARKS.—A square pillar coloured white, situated on a hill bearing nearly north, distant $8\frac{1}{2}$ cables from Jooldia flagstaff, brought just eastward of, and nearly touching, a white post 50 feet in height, surmounted by a white triangle on the plain bordering the foot of the hills, on a north 40° east bearing, leads over the outer part of the bar in from 9 to 10 feet at low water and about 180 yards south-east of the outer red bar buoy, making the north limit of the channel, until an overhanging tree (Leading Tree), apparently on the same ridge as, and to the northward of, the pillar, comes in line with a white triangle surmounted by a white disc on a pole, on the river bank on a north 35° east bearing. The vessel will now be about $5\frac{1}{2}$ cables north-eastward from the second red buoy, which will have been passed close to, and the course of north 35° east should be pursued, with the white disc and triangle just alluded to, in line with the central part of the overhanging or Leading Tree. This leads over the deepest water on the inner part of the bar, and into the deep basin off Jooldia village, into which the river on its eastern side deepens out, and where quiet anchorage may be found.*

TIDES.—It is high-water at full and change on the outer part of the bar at the entrance to Karnaphuli River at about 0h. 45m. Springs rise 15 to 16 feet and Neaps 10 to 11 feet.

During the south-west monsoon, April to October, extraordinary spring tides have been known to rise as much as 19 feet above the level, to which the soundings upon the Admiralty Chart are reduced, or above low-water ordinary spring tides of the dry season, January to April.

Off Jooldia flagstaff, or upon the inner part of the bar, the flood tide is half an hour later than at the outer part of the bar.

Near the town of Chittagong high-water occurs about $\frac{1}{4}$ hour later than at Jooldia, and consequently $1\frac{1}{4}$ hours later than at the outer part of the bar.

The stream of the tide changes on an average $1\frac{1}{4}$ hours after the water has ceased to rise and $1\frac{1}{4}$ hours after the water has ceased to fall off Chitta-

* Reported lumps on the bar appear to be often caused by the grounding of vessels, the tendency thus arising for a bank to form around the vessel, more especially on the up-river side, or that exposed to the ebb stream.

* It ought upon the bar and unable to get either out or in, there is anchorage for one ship of 17 feet draught at low-water, close to the middle red buoy.

gong, and 1½ hours after the same cessations in the neighbourhood of Jooldia.

During the rainy season, April to September, the ebb tide runs with great strength. Under ordinary conditions the tidal streams average about 9 knots at neaps, and from 3 to 4 knots at spring tides.

THE EASTERN CHANNEL.—Into the Karnaphuli River, which in 1877 only carried quarter of a fathom of water, has now from 6 to 7 feet at low water, and though only two cables in width in its narrowest part, may be made use of by steam-vessels, there being less tide and sea in it than in the main channel over the bar.

TO ENTER. The northern of five trees on Five-tree Hill, seen open just southward of Big Tree in a village half a mile eastward of Norman's Point, on a bearing of north 61° east, leads in through the narrowest and deepest part, until the Leading Tree northward of Jooldia Hill flagstaff is seen just open to the right or eastward of the white triangle on the pole situated on the river bank to the southward of the white pillar on a ridge, on a north 25° east bearing, which will lead up until past the small black buoy (which makes the western side of the 7 foot patch), and nearly to abreast Jooldia tide-gauge, when the white barrel on the tripod in line with the white cross on tripod on the eastern or left bank, and two miles northward of Jooldia flagstaff, will be made out, and should be steered for on a north 15° east bearing.

PILOTS.—Vessels strange to the port of Chittagong, and those of large draught, should invariably take a pilot, anchoring in from 30 to 36 feet outside the bar, with Norman's Point light-house bearing east-north-east, distant about 2½ miles, and Patunga flagstaff north by west ¼ west, making the requisite signal.

There are two Government pilot cutters of about 30 tons burden, their distinguishing flag shown at the masthead, having a single white and red horizontal band: one of these will generally be found at anchor about 3 mile, south west of the outer bar buoys. In 1883 two of the pilots were Europeans, the remainder natives; all are well conversant with the navigation of the river and may be trusted.

The pilotage rates are as follows: steam vessels are charged a half, and vessels taking steam to tow them, two-thirds pilotage rates:—

DRAUGHT IN FEET	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23°
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
In or out	30	30	42	50	60	70	80	95	110	125	140	160	180	205	230	260

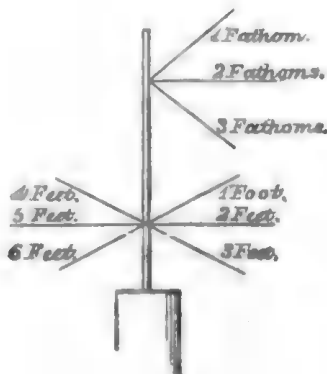
* For every foot or part above 23 feet an additional sum of Rs. 32 will be charged. Three-fourth rates will be charged for steamers and vessels towed by steam.

Vessels can make arrangements for being towed by the mail steamers of the British India Steam Navigation Company, which arrive twice a week. A tug boat is expected to be attached to the port in the course of the year 1883.

PORT DUES.—Are 4½ annas per ton. Vessels in ballast are charged at three-quarters of this rate.

MOORINGS.—There are sixteen sets of moorings for first class ships. Of these, fourteen are swinging moorings, this method being judged necessary for accommodation and safety during the south-west monsoon.

TIDAL SIGNALS.—Are exhibited in the day time from the semaphore on Jooldia Hill to vessels outside the bar, and denote the rise of tide on the bar above the level to which the Admiralty Chart of 1883 is reduced.



JOOLDIA HILL.—About 88 feet high, has upon its summit a prominent flagstaff, a semaphore pole, and a well built Government bungalow with a large wide-spreading tree close to the southward of it.

From the flagstaff the various signals regarding shipping and weather are signalled, and from the semaphore the depth of water on the bar.

GEOGRAPHICAL POSITION.—Jooldia flagstaff is situated in latitude $20^{\circ} 14' 6''$ N, longitude $91^{\circ} 49' 55''$ E, depending upon the latest position of Madras Observatory as being in longitude $80^{\circ} 14' 51''$ E east of Greenwich.

FIVE-TREE HILL.—Has the appearance from the river of forming the southern limit of an extensive table land, of which Jooldia Hill forms a part, and has upon it, as its name denotes, five trees, of which the central one is the most prominent.† The northern tree forms a mark for the eastern channel into the Karnaphuli River.

SOLITARY TREE.—Is round and bushy, and crowns a steep detached hill about the same height as, and situated three cables south-eastward of, Jooldia flagstaff; it forms an unmistakable mark when navigating up or down the river.

LEADING TREE.—On the ridge about a mile north of Jooldia flagstaff hill, has a rugged looking trunk and flat umbrella-like top. Used in conjunction with the triangle and disc on a pole on the river bank on its southern side, as well as with the single triangle on the river bank on its northern side, it is a leading mark for ascending and descending the river.

WHITE PILLAR.—Is situated on the highest part of the ridge between Jooldia flagstaff hill and leading tree. The pillar is 15 feet high square, built of brick and coloured white, having steps on its eastern side, and is surmounted by a lantern which it is proposed to use as a guide to vessels leaving the river at night.

The lantern is elevated about 90 feet above high-water. White pillar seen in line with the south-east or right-hand corner of the white triangle on an iron pole, situated on the river bank, to the southward of it, bearing north 40° east, leads over the outer part of the bar in 9 feet at low-water spring tides.

TIDE-GAUGES.—At a distance of 2½ cables west-south-west of Norman's Point is a disused tide-gauge, which covers at high-water ordinary spring tides.

Off Jooldia Hill station, on a north-west bearing from the semaphore, distant 4 cables, or on the edge of the mud bank lining the river, is a tide-gauge marked in steps at every 3 feet, by which the tidal signals governing the entry and exit of vessels, as signalled from the Semaphore, are judged.

Zero on this tide-gauge represents the level to which the soundings on the Admiralty Chart of 1883 are reduced.

BENCH MARK.—The upper surface of a flat white stone under a banyan tree at the foot, and to the westward of Jooldia Hill, is 29 feet 1½ inches above the level to which the soundings on the Admiralty Chart are reduced, or above zero on the local tide-gauge. The heights upon the same chart are also expressed above the upper surface of this stone.

CROSSING MARKS.—Two miles northward of Jooldia Hill flagstaff, on the east or left bank of the Karnaphuli River, is a tripod surmounted by a barrel, the whole painted white; and 280 yards north 15° east of this tripod, situated amongst houses and trees, is a second tripod surmounted by a pole, on which is a white cross facing southward, and over the cross a white disc facing westward.

The barrel and cross in line lead up in deep water through the Jooldia basin, clear of danger.

FLAT TREE.—Is a widespread tree with dark green foliage, situate on the northern part of the ridge or group of hills, of which Jooldia Hill forms a part. It bears from Jooldia flagstaff north 14° east, distant 2 miles 1 cable nearly.

Flat Tree in line with the white disc on the northern of the two tripods previously described on a south 87° east bearing, leads in 13 feet at low-water over the second bar, which extends eastward across the river from the north-east point of Patunga Island.

JOOLDIA VILLAGE.—Is long and straggling, consisting of bamboo cottages, enclosed by bamboo and leaf fences. Narrow lanes run in all directions amongst them. Numerous fresh-water tanks are scattered over the face of the country near the villages of and around Jooldia, many of which are overgrown with weeds.

Between Flat Tree Hill on the northern extreme of the Jooldia range and the group of low hills at the back of the town of Chittagong, there are no natural features calling for note.

A POLE.—Used as a crossing mark on the western or right bank of the river is situated on the north-east part of Patunga Island. It is almost in the same line as that with the white disc over white cross on tripod on with Flat Tree on ridge, and is a rough guide for crossing when bound up river. It also denotes the limit to which vessels of 23 feet draught may be moored in the pool of the river above the second bar.

THE SECOND BAR.—Extends across the river at the elbow formed by the trend of the reaches of the river around the north-east point of

* The longitude of Chittagong was redetermined in 1883 by an officer of the (Great Trigonometrical) Survey. The results of his observations are not yet published.

† In reality the group of hills forming this apparent table land are much cut up with numerous projecting spurs, detached peaks, and twisting valleys, but in the distance the whole blends together and assumes a flat over-topped appearance.

Patunga Island, and has over it from 13 to 14 feet at low-water ordinary spring tides.

THE CROSSING MARK—Is the white disc over the white cross on the northern tripod on the east or left bank of the river on with Flag Tree on the ridge half a mile to the eastward, on the bearing of south 87° east.

After the second bar, the navigation in the ascent of the river to abreast the town of Chittagong is easy until the bar of hard ground, the shoalest part of which is marked by a buoy with staff and ball coloured in horizontal bands of red, black, and white, is reached. This buoy in 12 feet may be passed on either side in a depth, at low-water, of 13 feet, but threading a vessel's way amongst the shipping, if strange to the place, will prove hazardous, and before this part is reached, the services of a local pilot should be engaged.

WRECKS.—In 1883 the wreck of a vessel on the southern extremity of the spit extending southward from Patunga Point was visible at low-water, and 8 cables south 54° west from the highest light tripod on Norman's Point; the wreck of a full-rigged iron vessel,* with the upper deck level with the water and masts standing, formed a conspicuous mark when approaching the mouth of the Karnaphuli River from the southward.

INNER BUOYS.—A small black can buoy marks the western edge of a 7 feet patch inside the river off Jooldia flagstaff. From it Jooldia flagstaff bears north 63° east and Patunga flagstaff north 81° west.

This patch may be passed on either side, but if using the Western channel, the west side of it is the side that should be kept.

A SMALL BLACK CAN BUOY—Is situated off the mud flat on the east or left bank of the river above Jooldia flagstaff. It is intended as a mark for the western limit of a protuberance which is about a cable south-west of it, which latter extends from the shore bank, having over it as little as 11 feet at low-water. From the buoy Jooldia flagstaff bears south 7° east and leading tree north 69° east. The channel lies on the west side of this buoy.

TWO RED CAN BUOYS—Are situated between Jooldia and the second bar. They are intended to mark the eastern limit of the bank extending out into the river from the north-east part of Patunga Island. The channel lies between these red buoys and the eastern or left bank of the river.

These buoys bear from one another north and south, and are nearly $3\frac{1}{2}$ cables apart. From the northern leading tree bears south 39° east, distant $5\frac{1}{2}$ cables, and from the southern the same object bears south 80° east, distant $3\frac{1}{2}$ cables.

Above or northward of the north-east point of Patunga, known as Goapta-khali Point and the second bar, the deep water channel of the river lies near the western or right bank, and so continues until the mooring buoys of Chittagong are reached.

Six creeks enter the river on the western side between Chittagong and the second bar, named consecutively, working from the southward, Goapta-khali, Coota-khali, Kaba-khali, Doma-khali, Cooma-khali, and Mahesh-khali.

The eastern bank becomes low and swampy, and is broken up into four distinct mud-formed islands locally known as *chárs*; to these grass-cutters resort in their canoes. There is a passage for boats eastward of these *chárs* at high-water.

MAHESH-KHALI CREEK or canal, enters the Karnaphuli River about $1\frac{1}{2}$ miles south-westward of, or below the town of Chittagong, and after circuitously cutting across the low land forming the western bank of that river, enters the Sandwip Channel about $2\frac{1}{2}$ miles south of Patunga Point, rendering the apparent peninsula of Patunga an island at high water. Although this creek affords a safe and expeditious route for the many cargo boats and small craft plying with cargoes of rice and jute from the ports of the Meghna River, by the crews of which the navigation round Patunga Point is so much dreaded, it was, in 1883, nearly silted up, affording a passage only for the smallest sized boats at high water.

FAKEER'S HILL.—Of moderate height, near the western extremity of the Chittagong cluster of hills, and on the summit of which is a prominent tree, is the only conspicuous mark in the background of the river after the Jooldia group of hills is passed. From the Sandwip Channel it is reported to be visible at a distance of 15 miles on a clear day.

FIVE BLACK CAN BUOYS mark the western edge of the bank on the east side of the channel above the second bar, and there are fourteen large black can mooring buoys, which may be distinguished from those marking the channel by the fact of their being many sizes larger.

A striped ring buoy marks the shoalest part of a bar of hard ground situated half a mile westward of the Government pier, Chittagong. On this bar there is only 13 feet at low-water.

CHITTAGONG PORT—Is the second in importance and prosperity of the ports of Bengal, and affords fairly easy access and safe anchorage to ships of 20 feet, and at spring tides even of 24 feet draught.

With the improvements in lighting and buoying, the approaches to Chittagong, the moorings which have recently been laid down for large vessels,

* The *Bannockburn* scuttled, having caught fire in the river in 1892.

and a steam-tug which will shortly be introduced, Chittagong should continue to increase in mercantile prosperity.

The proximity of the port of Chittagong to the river Meghna, topping as that river does much of the country traversed by the Ganges and Brahmaputra, and offering a water-way to the numerous native brigs and other craft which carry down from the rapidly developing river port of Narayanganj, jute, rice, &c., in time will probably again earn for it its former title, the "Porto Grande" of the Portuguese navigators, who in former years frequented it. Judging by the survey of 1883, there appears no foundation for the report that the right bank of the river off Chittagong town is gradually shoaling.

The port of Chittagong and the navigable river and channels leading thereto are subject to the Indian Ports Act of 1875. The limits of the port are :—

To the north-east—a line drawn across the river Karnaphuli from the boundary pillar at the mouth of the Chaktai Nulla, to the boundary pillar on the opposite bank.

To the south—a line drawn from Jooldia flagstaff to Patunga beacon.

These limits include the river and the shores lying within fifty yards of high-water mark at ordinary spring tides.

The limits of the navigable river and channel leading to the port of Chittagong are as follow :—

To the north-east—the port of Chittagong as above defined.

To the south—a line drawn west from Norman's Point light-house.

To the north—the port as defined above, and from Patunga beacon a line drawn due west sea-ward.

To the west—a line drawn parallel to the line between Patunga beacon and Norman's Point light-house at a distance of 4 miles.

To the east—the south bank of the river between Jooldia and Norman's Point light-house.

All parts of the river between these limits and below high-water mark at spring tides, are subject to the Act.

A telegraph wire stretches across the river just above the town of Chittagong at a height of about 50 feet above high water. Small vessels bound up river, should lower their upper masts in consequence.

PORT DUES are levied at the following rates, once in 60 days, in the port of Chittagong.

Balam* boats of 10 tons and upwards, 1 anna per ton burthen.

All other sea-going vessels of 10 tons and upwards, 4½ annas for every ton burthen.

TRADE.—The trade report of Chittagong for the year 1881-82 showed an increase over that of 1880-81 of upwards of 45 lakhs of rupees, or about £380,000. The value of the trade in the latter year amounting to £1,571,956, and the number of vessels, which entered and cleared the port to 96, representing an aggregate of 68,100 tons, or 19,319 tons in excess of the 71 vessels entered and cleared in the year 1880-81.†

Jute can be loaded at 6 to 7 annas per ton.

Salt discharged at the same price. The average disbursement of vessels arriving in ballast and loading rice cargoes is as follows :—

	Rs.	Rs.	
300 tons	1,200 to 1,400	} exclusive of towage.
600 "	1,700 to 1,900	
1,000 "	2,300 to 2,600	

Vessels arriving in ballast and loading jute—

1,200 to 1,400 tons, Rs. 6,000, including towage.

Steamers loading jute—

1,200 to 1,500 tons, Rs. 5,000 to 7,000.

Rice can be loaded by sailing vessels generally in two-maund bags, at from 2 to 3 annas per ton; by steam-vessels at 4 annas per ton.

Stone ballast may be procured at from 12 annas to Rs. 1-8 per ton, and can generally be discharged free of expense to the ship.

Mud ballast is also procurable.

Ballast can be discharged at 4 annas per ton.

LABOUR.—Coolies can be hired at from 7 to 8 annas per day, or by contract rates.

EXPORTS.—The export of jute is rapidly increasing. Rice, paddy, tea, and cotton are also largely exported.

IMPORTS.—Salt in large quantities from Great Britain, earth oil, and piece-goods, and occasionally timber from Rangoon.

SUPPLIES.—Fresh provisions are to be had at Chittagong at moderate prices, but fresh-water is not easily procured, the price for delivery alongside

* Boats peculiar to the locality, which carry cargo; the planking is sewn together, and the frame-work jointed. No nails or bolts are made use of in their construction.

† A variety of quaint looking country crafts averaging from 50 to 300 tons, and resembling brigs in their rig and sails, ply between Chittagong and Narayanganj on the Meghna. It would seem that these vessels partake of the relics of seamanship handed down to the descendants of the early Portuguese navigators, who effected a settlement in this part as far back as 1604.

amounting to from Rs. 25 to Rs. 30 per 1,000 gallons. For washing purposes the water brought down by the last of the ebb, about 2 miles above the town, will be found sufficiently cleanly.

COAL, in quantities up to 100 tons can generally be purchased at a cost (for Welsh coal) of Rs. 25 per ton.

COMMUNICATION.—The great trunk road to Dacca to the northward runs from Chittagong parallel to, and at about three miles from the eastern coast line of the Sandwip Channel. There is a daily post by land to Calcutta, and a telegraph office with facilities for telegraphing throughout India and Europe. Telephonic communication between Chittagong and Jooldia is, it is expected, to be shortly accomplished. Weekly mail steamers run direct to and from Calcutta.

Funds are said to have been granted for a railway, which will connect Chittagong and Daudkandi, Eastern Bengal, in which case the jute trade, at present conducted by small vessels from Naráyangánj, will receive a fresh impetus, and probably increase.

REPAIRS.—Vessels of any size up to 1,400 tons can have their bottoms repaired or cleaned by beaching on a bank of hard sand, bearing south-south-east, distant $\frac{1}{2}$ of a mile, from the Port Officer's flagstaff, near the landing jetty at Chittagong. It is advisable to hire the Government anchor buoy on these occasions, which may be procured for the purpose of laying out the necessary anchors at a cost of Rs. 64.

THE TOWN OF CHITTAGONG.—Also named by the Moghuls in 1665, Islamabad, or the Residence of the Faithful, has an interesting early history attached to it.* It is situated on the western or left bank of the Karnaphuli River at about 12 miles from its mouth, and lies scattered with its villages amongst a group of small, steep, table-topped hills, the whole covering an area of nine square miles.

The European residents inhabit the bungalows built on the summits of these hills, and, generally speaking, each house has a hill to itself.

The chief buildings are the Government offices, Roman Catholic Cathedral, Protestant Church, a large mosque, school-houses, dispensary, post office, and club house.

The merchants' offices and business quarters fringe the rivers bank. Near at hand are the offices of the French and United States Consuls, two mills for cleansing rice,† Agencies for various shipping companies, port office, custom-house, &c.

The total population amounts to 20,604, of which the greater number are males, owing to the fact that the population chiefly consists of men who come from other parts either for trade or in search of employment, leaving their families at home.

Ship-building was formerly carried on to a considerable extent, but of recent years has fallen away. Ship repairs, however, can still be effected at about the same rates as are charged at Calcutta.

HEALTH.—Although the low lying native town of Chittagong, on account of the numerous disused fresh-water tanks, overgrown with rank vegetation, is considered unhealthy, the port is not by any means worse in this respect than other river ports of India. Vessels visiting Chittagong are permitted the benefit of the attendance of a Government surgeon at a moderate charge.

The most unhealthy month of the year is September, or towards the close of the rainy season. Fever is then prevalent. In the months of April and May epidemics of small-pox and cholera are most to be expected. An easterly wind, if of long continuance, is said to be unhealthy. In the cold season northerly winds are most common.

WINDS AND WEATHER.—The situation of Chittagong exposes it to the force of the south-west monsoon, and the rainfall is generally heavy, averaging between 105 and 106 inches.‡ A sea breeze usually prevails during the day, rendering the air comparatively cool. The atmosphere is frequently loaded with moisture, causing heavy dew at night and occasionally dense fogs.

The prevailing winds from March to May are from south-west; from June to September they blow from the south-east; and from October to February from north-east.

From the middle of October to March, the weather is fine and settled; but towards April, or the end of the season, the wind becomes more easterly, with occasional heavy north-westers in the afternoon.

From about the middle of April the south-west monsoon blows fresh in the upper part of the Bay of Bengal; but near the land in the north-east part of the Bay, land and sea breezes are met with.

Near Chittagong, in the forenoon, the wind generally blows from the south-east and is moderate; towards the afternoon freshening up and veering to the south-west quarter.

In June and July, during the height of the south-west monsoon, it blows hard from south-south-east to south-west with rain, leaving now and then a few comparatively fine days.

* Stewart's History of Bengal, pp. 187-189.

† Rice at Chittagong in husking is parboiled before shipment. This is said to give it a superiority as a grain cargo, over rice not similarly treated, which latter is liable in bulk to accumulate heat at times to a dangerous extent.

‡ At the beginning of the present century Chittagong was considered a sanitarium, and resorted to from Calcutta on account of its cool sea breeze.

The velocity of the wind is least in October and greatest during June and July.

The following is the monthly mean meteorological table resulting from observations made at Chittagong :—

Month.	Temperature.	Barometer.	Cloud proportion.	Rainfall.
January	66.8	29.917	0.88	0.58
February	71.6	29.871	1.32	1.26
March	77.0	29.802	2.06	1.31
April	81.8	29.730	3.72	4.70
May	82.9	29.661	4.95	6.18
June	81.9	29.552	9.91	22.46
July	81.0	29.544	7.19	22.27
August	81.0	29.589	6.61	21.43
September	81.4	29.659	5.06	12.03
October	80.2	29.708	3.87	6.32
November	74.4	29.885	1.00	1.81
December	68.3	29.937	1.39	0.41

CYCLONES.—Although the neighbourhood of Chittagong is much exposed, serious injury by cyclones is not often caused. In 1849 and again in 1872 and in 1876, severe cyclones accompanied by storm-waves, worked great havoc in the district. In 1849 large quantities of lime and salt were left upon the soil when the sea water had again subsided to its natural level. In 1876 a severe epidemic of cholera occurred immediately after the cyclone, numbers of natives as well as several Europeans falling victims.

WEATHER SIGNALS.—The following arrangements for weather signals for the port of Chittagong, sanctioned by Government in November 1882, are only used within the limits of the port to give notice to the shipping and general public of the early approach of a severe cyclone with its attendant storm-wave. They are hoisted on the flagstaff of the Port Officer and on the yard-arm of the flagstaff at Joodia, on receipt of instructions from the Meteorological Office at Calcutta :—

1. Day warning signal.



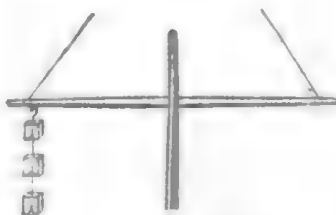
A *Ball* indicates that a severe cyclone, of which the centre is in the neighbourhood of the coast, is advancing towards the mouth of the river, and will probably advance towards Chittagong.

2. Day danger signal.



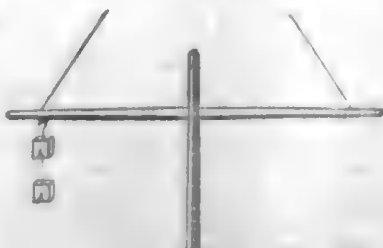
A *Drum* indicates that a severe cyclone with its attendant storm-wave is approaching Chittagong.

3. Night warning signal.



Three lights in a vertical plane indicate that a severe cyclone, of which the centre is in the neighbourhood of the coast, is advancing towards the mouth of the river, and will probably advance towards Chittagong.

4. Night danger signal.



Two lights in a vertical line indicate the early approach of a severe cyclonic storm and its attendant storm-wave, to the port of Chittagong.

EARTHQUAKES.—Occur at rare intervals, although the shock of them is said to be often felt, generally in the winter season.

In April 1872 Chittagong was violently shaken by one of these phenomenon, the earth opening in many places and throwing up mud and water. In 1865 and as recently as 1882 shocks of earthquakes are reported to have been noticed.

[First Publication.]

NOTIFICATION.

The 19th June 1883.—The following notice is published for general information.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

GOVERNMENT OF BENGAL, GENERAL (MARINE) DEPARTMENT.

NOTICE TO MARINERS.—(No. 24.)

CEYLON—EAST COAST.

TRINCOMALIE.

Rock off York Shoal.

INFORMATION has been received from the Naval Commander-in-Chief in the East Indies of the existence of a sunken rock (on which the steam-ship *Kerbela* struck) lying in the approach to the Merchant Ships' anchorage at the entrance to the Inner Harbour of Trincomalie.

The rock, with a least depth of 15 feet over it at low-water, lies one cable North from the centre of York Shoal, with the following bearings:—

Dockyard flagstaff	..	..	..	S. 18° E
West extreme of York Shoal	..	..	..	N. 87° E.

This new danger, not marked on charts, consists of a rocky, uneven bottom, with soft mud all round, the shoalest part being almost a pinnacle, and difficult to find with a lead. The approach is sudden on the North side, but between the rock and York Shoal there are five fathoms of water.

By direction of the Government of Bengal,

J. MENTEITH BREBNER,
Offg. Port Officer of Calcutta.

CALCUTTA PORT OFFICE, the 16th June 1883.

[First Publication.]

NOTIFICATION.

The 19th June 1883.—The following Gilchrist Scholarship Regulations are published for general information.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

GILCHRIST EDUCATIONAL TRUST.

Trustees:

RICHARD LEIGH HOLLAND, Esq., (*Chairman*).
EDGAR ALFRED BOWRING, Esq., C.B.
RT. HON. LYON PLAYFAIR, C.B., M.P., LL.D., F.R.S.
SIR UGHTRED JAMES KAY-SHUTTLEWORTH, BART.
THE HON. ALFRED LYTTELTON.

Secretary:

WILLIAM B. CARPENTER, Esq., C.B., M.D., LL.D., F.R.S.

[All communications to be addressed to

The Secretary of the Gilchrist Educational Trust,

4, The Sanctuary, London, S.W.]

Conditions for Scholarships instituted by the Gilchrist Educational Trust for the benefit of Natives of India.

[These Scholarships, like the Degrees and other Academical Rewards of the University of London, are open to Women upon exactly the same conditions as to Men.]

A SCHOLARSHIP of the value of £150 per annum, and tenable for four years, will be annually awarded to a candidate born in India, who shall become eligible by competitive examination, and shall be desirous of prosecuting a course of Academical study in Great Britain, with a view to graduation in one of the Faculties of Arts, Science, Law, or Medicine, in the University of London, under the following conditions:—

1. Of the parents of each candidate, one at least shall belong to one of the native races.
2. Every candidate must furnish proof satisfactory to the local authorities that he has completed his sixteenth year, and that his age does not exceed twenty-two years.
3. Every candidate must furnish proof satisfactory to the local authorities that, in regard to personal character and social position, he is qualified to be admitted to competition for a scholarship.
4. Candidates approved by the local authorities shall present themselves at the January Matriculation Examination of the University of London, which will be held simultaneously, under the direction of Government Sub-Examiners, at the three presidential capitals, commencing on the second Monday in January.

5 The answers of the candidates, approved as aforesaid, will be forwarded, through the India Office, to the Registrar of the University, who will cause them to be reviewed by the Examiners, and who will forward their report to the India Office for transmission to the local authorities in the presidential capitals, to be by them announced to the candidates.

6. The scholarship shall be awarded to the candidate whose aggregate of marks stands highest, provided that he passes either in the Honours or in the First Division. Such candidate shall have his choice whether he will pursue his curriculum of study in the University of Edinburgh or in University College, London.

7. The successful candidate will be provided by the Government of India with a free passage to England; and will be expected to arrive in London, and to present himself to the Secretary of the Gilchrist Trust, not later than the first week in the October following his appointment.

8. The Scholarship shall be considered as commencing from the 1st of July following the award of the Examiners; and shall be paid in quarterly instalments on the first days of October, January, April, and July.

9. Each Scholar shall attend in every Session at least three Courses of Lectures at the institution in which he studies; and shall transmit to the Secretary of the Gilchrist Trust, at the conclusion of each Session, a certificate from each of the Professors, whose Lectures he has attended, stating that his diligence and conduct have been satisfactory. Should he not be able to produce such a certificate, or should he be proved guilty of discreditable conduct elsewhere, he shall be considered to have forfeited his claim to the remaining instalments of his scholarship.

10. Each Scholar shall be expected to present himself at the first examination in one of the Faculties of Arts, Science, Law, or Medicine in the University of London before the termination of the second (Academical) year* from the commencement of his scholarship, unless excused from doing so by the Trustees; and if he do not so present himself (unless by permission of the Trustees), or if he fail to pass, he shall be considered as forfeiting his claim to the remaining instalments of his scholarship. After having passed the first examination, he will be expected to pursue his studies with the view of presenting himself at the next examination within two (Academical) years.

11. A grant of Fifty Pounds will be made by the Trustees for the return-passage of every scholar who shall succeed in obtaining his degree in the University of London. For every scholar who may fail to obtain his degree, a return-passage will be provided by the Government of India.

12. The foregoing scheme shall be subject to revision from time to time, the Trustees reserving to themselves the power of altering the conditions of the scholarships, or of altogether withdrawing them, if they deem it expedient to do either. But no change will be made in such a manner as to affect the interests of candidates already appointed to scholarships, or in any case without twelve months' notice.

* Thus a candidate whose scholarship commences on the 1st of July 1884 would be considered as having fulfilled this condition if he pass the Intermediate LL.B. examination in January 1886; or the Intermediate B.A., the Intermediate B.Sc., or the Preliminary Scientific M.B. examination in the following July.

(First Publication.)

NOTIFICATION.

The 19th June 1883.—The following notices are published for general information.

A. P. MACDONNELL,

Offg. Secretary to the Govt. of Bengal.

NOTICE TO MARINERS.—(No. 53).

CEYLON—SOUTH COAST.

POINT DE GALLE HARBOUR APPROACH.

Buoy marking Para Rock Shoal.

THE Government of Ceylon has given notice that a buoy has been placed to mark the south-western edge of Para rock shoal, approach to Point de Galle harbour.

The buoy, painted black and white in horizontal stripes, is moored in 7½ fathoms, with the following bearings.—

Bayley's Villa, Glosenburg	..	..	..	N.N.E. ¼ E.
Point de Galle lighthouse	..	..	..	N.W. ¼ N.

Note.—As this buoy is placed mainly for the information of the pilots, vessels making the port should not proceed northward of the bell buoy marking the Outer Cadda rock until a pilot has been received.

(The bearings are Magnetic. Variation 1° Easterly in 1883.)

By Command of their Lordships,

FRED. J. EVANS,

Hydrographer.

HYDROGRAPHIC OFFICE, ADMIRALTY, LONDON, the 23rd February 1883.

This notice affects the following Admiralty Charts:—Ceylon, southern part, No. 813; Point de Galle, approaches to, No. 819; Point de Galle harbour, No. 820: also West Coast of Hindostan Pilot, 1880, page 42.

NOTICE TO MARINERS.—(No. 81).

ARRACAN COAST.

PORT OF SANDOWAY.

BUOY MARKING DRUNKEN SAILOR SHOAL.

A BUOY has been placed near the south end of Drunken Sailor shoal, entrance to port of Sandoway.

The buoy (first class), conical, coloured red, and carrying a basket on a spire, is moored in 6 fathoms at low water, with the following bearings:—

Rest house, north bank, Sandoway river entrance	..	N. 78° E.
Bluff point, south bank	..	East.
Detached rock	..	S. 46° E.
Position approximate, lat. 18° 33' 25" N., long. 94° 8' 40" E.		

Note.—Vessels may pass between Detached rock and this buoy, and, hauling up N.N E., anchor in about 6 fathoms, mud and sand, with Bluff point bearing East, distant half a mile.

(The bearings are Magnetic. Variation 2½ Easterly in 1883.)

By Command of their Lordships,

FRED. J. EVANS,

Hydrographer.

HYDROGRAPHIC OFFICE, ADMIRALTY, LONDON, the 28th March 1883.

This notice affects the following Admiralty Charts:—Cheduba strait to Coronge island, No. 822; Cheduba strait and Ramree harbour, No. 832.

[First Publication.]

NOTIFICATION.

The 12th June 1883.—In exercise of the powers conferred upon him by section 19 of the Indian Forest Act. VII of 1878, the Lieutenant-Governor hereby declares the tract described below to be a Reserved Forest with effect from the 1st April 1883.

DISTRICT.	Perannah or other sub-division.	Name of forest.	Description of boundaries.
Chittagong Hill Tracts.		Sitapahar Reserve.	<p><i>North</i>—A demarcated line running from the ridge of Rampahar hill to the mouth of the Rhyukheong stream; then the Rhyukheong stream up to the mouth of the Baibong Serra.</p> <p><i>East and South</i>.—The Baibong Serra to its source; then a demarcated line running in a south-westerly direction to the Kaptai stream, and across this in a westerly direction to the source of the Chitmaram Serra; then the Chitmaram Serra; then the Karnafulee river; then the Jamir Serra to its source.</p> <p><i>West</i>.—A demarcated line running from the source of the Jamir Serra along the ridge of the Sitapahar range of hills to the Karnafulee river; then along the ridge of Rampahar hill to the northern boundary.</p>

A. P. MACDONNELL,

Offg. Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 6th June 1883.—The following telegram, received from the Government of Bombay, dated the 4th instant, is published for general information:—

Dated 4th June 1883.

To—Calcutta.
To—Bengal.

From—Bombay.
From—General Secretary.

To mine 2nd. Following from Resident, Aden. Telegram begins—British Consul at Alexandria telegraphs:—Resident can only remove quarantine at Aden on vessels which leave Bombay after June 13th.

A. P. MACDONNELL,

Offg. Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 12th June 1883.—The following telegram, received from the Government of India, Home Department, dated the 8th instant, is published for general information.

The 8th June 1883.

To—Darjeeling.

To—Bengal, General.

From—Simla.

From—Home.

FOLLOWING received from British Consul, Constantinople. Message begins :—“In reply to questions from Consul at Jeddah, English Delegate at Board of Health communicates following :—Ottoman Health Department is endeavouring to make arrangements with Khedive Steam Ship Company for conveyance of pilgrims from Camaran to Jeddah. Nothing settled yet. Pilgrim ships are vessels specially freighted for transport of pilgrims to Mecca. A few pilgrims, number not determined, taking passages by other vessels will not render those vessels subject to pilgrim regulation. Message ends.

A. P. MACDONNELL,

Offg. Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 12th June 1883.—The following notice is re-published for general information.

A. P. MACDONNELL,

Offg. Secretary to the Govt. of Bengal.

GOVERNMENT OF INDIA (MARINE BRANCH), MILITARY DEPARTMENT.

NOTICE TO MARINERS.—(No. 23).

BAY OF BENGAL—COAST OF ORISSA.

FALSE POINT.

Occasional Obscuration of Light by Fog.

THE attention of Mariners is called to the following remarks relative to False Point Light :—

During the months of January, February, and March, the prevalence of low-lying, heavy fog—over the land which lies between the light-house and the sea—occasionally interferes with the proper visibility of the light, and at times may even obscure it, although the weather at sea may be clear.

Mariners should, therefore, be specially cautious when approaching the light during the first quarter of the year, and use the lead continually.

By direction of the Government of India,

A. DUNDAS TAYLOR, *Comdr., late I. N.*,

Superintendent, Marine Survey of India.

MARINE SURVEY DEPARTMENT, Calcutta, 8th June 1883.

This notice affects the following :—

BRITISH ADMIRALTY Charts Nos. 755, 814, 829, 70, and 748b.

“ “ Light List for 1881.

INDIAN MARINE SURVEY Charts Nos. 1165, 115, 1172, 15c, and 103a.

“ “ “ Light List for 1881.

Also Taylor's Sailing Directory, vol. I, page 469.

If this Notice is received on boardship, the substance of it should be inserted on the Charts affected by it, and introduced into the Sailing Directions to which it relates.

[Third Publication.]

NOTIFICATION.

The 1st June 1883.—The following telegram, received from the Government of India, Home Department, dated the 26th May 1883, is published for general information :—

To—Darjeeling.
To—Bengal.

From—Simla.
From—Home.

Dated the 26th May 1883.

My telegram 18th. Secretary of State's message begins :—Mine 16th. I do not think it necessary to quarantine Batavia. Sanction in India ports. Message ends.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

[Third Publication.]

NOTIFICATION.

The 31st May 1883.—The following telegram, received from the Government of India, Home Department, dated the 28th instant, is published for general information :—

To—Darjeeling.
To—Bengal.

From—Simla.
From—Home.

Dated the 28th May 1883.

The following message, received from Secretary, Her Majesty's Ambassador, Turkey : Message begins :—The Board of Health has requested me to send following in interest of Navigation. Masters of vessels who contract to transport pilgrims to Red Sea are requested only to contract as far as Camaran, as there will be special service from Camaran to Jeddah after pilgrims quarantine. I hear vessels can continue voyage after disembarking pilgrims, at Camaran. Message ends.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

[Third Publication.]

NOTIFICATION.

The 4th June 1883.—The following telegram, received from the Government of Bombay, dated the 2nd instant, is published for general information :—

To—Calcutta.
To—Bengal.

From—Bombay.
From—General Secretary.

Dated the 2nd June 1883.

MINE 15th ultimo. Following from Consul, Alexandria :—Board removes quarantine. This takes effect 15 days from 29th May on vessels leaving Bombay after 13th June.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

[Third Publication.]

NOTIFICATION.

The 2nd June 1883.—The following notice is published for general information.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

GOVERNMENT OF BENGAL, GENERAL (MARINE) DEPARTMENT.

NOTICE TO MARINERS.—(No. 23).

INDIA—WEST COAST.

MADRAS PRESIDENCY.

MALABAR DISTRICT.

COCHIN.

Displacement of the Buoys and exhibition of Light.

INFORMATION has been received from the Port Officer, Madras, that the bar buoys at the entrance to Cochin Harbour were to be removed on the 15th May 1883, and that the light at Narrakel was to be displayed from that date.

By direction of the Government of Bengal,

J. MENTEITH BREBNER,

Offg. Port Officer of Calcutta.

PORT OFFICE, Calcutta, the 29th May 1883.

[Third Publication.]

NOTIFICATION.

The 2nd June 1883.—Under the powers vested in him by section 61 of the Bengal Embankment Act, 1882, the Lieutenant-Governor directs that the dates specified below shall be the days on which instalments of the amount charged to, or apportioned on, estates or tenures, respectively, under the said Act shall be payable.

I.—In respect of estates—

- | | |
|---|---|
| (1). In districts where the Bengali or Umli era prevails, except the division of Orissa and the district of Chittagong. | <div style="display: inline-block; vertical-align: middle;"> <div style="font-size: 3em; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle; padding-left: 5px;"> 28th June.
28th September.
12th January.
28th March. </div> </div> |
| (2). In districts where the Fusli era prevails ... | |
| (3). In the division of Orissa ... | |
| (4). In the district of Chittagong ... | |
| II.—In respect of tenures ... | <div style="display: inline-block; vertical-align: middle;"> <div style="font-size: 3em; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle; padding-left: 5px;"> 7th June.
28th September.
12th January.
28th March.
28th April.
28th July.
8th November.
28th January.
25th May.
25th September.
26th December.
25th February.
15th April.
15th July.
15th October.
15th January. </div> </div> |

III.—When any instalment is not paid on the date on which it is due, interest shall be charged at the rate of 5 per centum per annum from such date until payment thereof.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

JUDICIAL DEPARTMENT.

No. 1708A.

The 15th February 1883.—Baboo Kunjo Lal Banerjee, Second Judge, Court of Small Causes, Calcutta, is allowed privilege leave for two months and one day, with effect from the 20th March 1883.

Mr. R. S. T. MacEwen (Barrister-at-Law), Third Judge, Court of Small Causes, Calcutta, is appointed to act as Second Judge of that Court, during the absence, on leave, of Baboo Kunjo Lal Banerjee, or until further orders.

Mr. G. C. Sconce (Barrister-at-Law), Fourth Judge, Court of Small Causes, Calcutta, is appointed to act as Third Judge of that Court, *vice* Mr. R. S. T. MacEwen, during the absence, on privilege leave, of Baboo Kunjo Lal Banerjee, or until further orders.

Mr. T. Jones (Barrister-at-Law), Registrar and Chief Ministerial Officer, Court of Small Causes, Calcutta, is appointed to act as Fourth Judge of that Court, during the absence, on deputation, of Mr. G. C. Sconce, or until further orders.

The 4th June 1883.—The Lieutenant-Governor accepts the resignation tendered by the gentlemen named below of their appointments as Honorary Magistrates for the Kandi Bench, in the district of Moorshedabad :—

Baboo Mohendra Gopal Ray.	Baboo Ram Chunder Ghose.
„ Upendra Sundra Trivedi.	„ Shib Krishna Ghose.
„ Kailash Chandra Ray.	„ Govinda Prosad Sinha.
„ Radha Mohun Ghose.	„ Bhubunnessur Sinha.
„ Jogendra Narain Roy Chowdry.	Munshi Fazlay Rabbi.

The following gentlemen are appointed to be Honorary Magistrates for the Kandi Bench, in the district of Moorshedabad, and are vested with the powers of a Magistrate of the third class :—

Pundit Ram Tarun Siromani.	Baboo Chunder Sekhur Gupta.
Baboo Mohendra Narain Sinha.	„ Hurish Chunder Banerjee.
„ Baikanta Nath Mukerjee.	„ Nil Mathub Paure Chowdhry.
„ Upendra Sundra Thakur.	Moulvi Mohiuddin.

The 11th June 1883.—The undermentioned officers are vested with the power, under section 32 of Act X of 1882, to pass sentences of whipping :—

Mr. R. C. Perry, Deputy Magistrate, Purneah.
 Baboo Gopal Chunder Mookerjee, Deputy Magistrate, in charge of the Arrareah sub-division of the district of Purneah.
 „ Ram Narain Banerjee, Deputy Magistrate, Bhagulpore.

The 12th June 1883.—Baboo Jugguthundhoo Bhattacharjee, Deputy Magistrate, Jungypore, Moorshedabad, is vested with powers under section 435 of the Code of Criminal Procedure in that sub-division.

Baboo Mohim Chundra Ghose, Deputy Magistrate, Shahabad, is vested with powers under section 110 of the Code of Criminal Procedure.

Mr. H. Holmwood, Officiating Joint Magistrate, Kooshtea, Nuddea, is vested with the power to try summarily the offences mentioned in section 260 of the Code of Criminal Procedure.

Mr. P. G. Melitus, Officiating Joint Magistrate, Meherpore, Nuddea, is vested with the power to try summarily the offences mentioned in section 260 of the Code of Criminal Procedure.

Moulvi Fuzlul Karim, Temporary Deputy Magistrate and Deputy Collector, Backergunge, is vested with the powers of a Magistrate of the first class.

Mr. H. F. Matthews, Officiating Joint Magistrate and Deputy Collector, 24-Pergunnahs is vested with powers under sections 110 and 133 of the Code of Criminal Procedure.

Mr. Matthews is appointed, under the provisions of section 22, Act X of 1882, to act as a Justice of the Peace within the territories under the Lieutenant-Governor's control.

The 16th June 1883.—Baboo Radha Kant Banerjee, Temporary Deputy Magistrate, Burdwan, is vested with the powers of a Magistrate of the second class.

LEAVE OF ABSENCE TO MUNSIFS.—*The 12th June 1883.*—Baboo Upendra Nath Bose, First Munsif of Patuakhally, in the district of Backergunge, on deputation as Third Munsif of Chupra, in the district of Sarun, returned to duty on the forenoon of the 1st June 1883.

The 14th June 1883.—Baboo Chuckeradhr Prosad, late Munsif of Behar, in the district of Patna, on transfer to Kishengunge, in Purneah, is allowed leave for one month, under section 127, chapter X of the Civil Leave Code, in extension of the leave granted to him on the 9th April 1883.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

NOTIFICATION.

The 11th June 1883.—Under the authority vested in him by the final clause of section 357 of the Code of Criminal Procedure, Act X of 1882, the Lieutenant-Governor empowers Baboo Chunder Kumar Dutta, Deputy Magistrate, Manickgunge, Dacca, to take down evidence in criminal cases in the English language.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

NOTIFICATION.

The 12th June 1883.—Under the authority vested in him by the final clause of section 357 of the Code of Criminal Procedure, Act X of 1882, the Lieutenant-Governor empowers Moulvie Mahomed Abdool Kadir, Deputy Magistrate, Narail, Jessore, to take down evidence in criminal cases in the English language.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

[Third Publication.]

NOTIFICATION.

The 22nd May 1883.—Under section 2 of Act II (B.C.) of 1867 (an Act to provide for the punishment of public gambling and the keeping of common gaming houses), the Lieutenant-Governor hereby extends all the sections of the said Act to the town of Silli, in the district of Lohardugga.

For the purposes of the above Act the boundaries of the town are as follows:—

On the North—Villages Catadi, Sarungjûrû, and Caloodih.

On the South—Tutkû, Nowadi, Lupdeg, Moissodi, and Domondi.

On the East—Japla, Bhamandi, and Murû.

On the West—Loopung, Manjuru, and Sillidi.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

[Third Publication.]

NOTIFICATION.

The 30th May 1883.—It is hereby notified, under the provisions of section 15 of Act V of 1861, that as several obstructions have been from time to time placed on the part of the Northern Bengal State Railway which runs through the villages of Harova, Nelphamaree, Bamohdanga, and Kauaikhata, in the Nelphamaree sub-division of the Rungpore district, and as such obstructions could only have been so placed by the villagers themselves

or through their connivance, the Lieutenant-Governor has sanctioned the employment of a special force, consisting of one head constable and ten constables, for three months commencing from 1st June 1883, to be quartered at the aforesaid villages for the purpose of preventing obstruction being placed on the line.

The cost of the force, as noted below, will be levied from the villagers in proportion to their respective means:—

			Rs.	A.	P.
1	Third grade head constable	..	15	0	0
2	Second grade constables, at Rs. 8 each	..	16	0	0
2	Third ditto " " 7 "	..	14	0	0
6	Fourth ditto " " 6 "	..	36	0	0
	Contingencies at 10 per cent.	..	8	1	7
	Pensionary charges at 2 annas per rupee	..	10	2	0
	Clothing at Rs. 4 each per year	..	3	10	8
	Per mensem	..	102	14	3
	And for three months	..	308	10	9

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

[Third Publication.]

DECLARATION.

The 4th June 1883.—Whereas it appears to the Lieutenant-Governor that land is required to be taken by Government at the public expense for a public purpose, viz. for extending the jail garden of Dacca, in kismat Tatkhana, pergunnah Jahangirnagar, zillah Dacca, it is hereby declared that for the above purpose a piece of land measuring more or less 17 beeghas 4 cottahs of standard measurement, bounded on the north by the lands of Ratan Mistri, Fullu Mistri, and Nanda Kumar Shing of Dacca; on the south by a public lane; on the east by Tatkhana lane; and on the west by the land of the said Nanda Kumar Shing, is required within the aforesaid kismat in Dacca.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

A plan of the land above specified may be seen at the office of the Collector of Dacca.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT,—BENGAL.

The 16th June 1883.

No. 228.—Leave.—Lieutenant G. F. Wilson, R.E., Executive Engineer, fourth grade, temporary rank, Tirhoot State Railway, is granted three months' privilege leave with effect from 9th July 1883, or such date as he may avail himself of it.

The 18th June 1883.

No. 229.—Mr. A. C. C. Rogers, Executive Engineer, fourth grade, temporary rank, Gunduck Division, is granted privilege leave for fifteen days, from 7th April 1883, under section 78 of the Civil Leave Code.

No. 230.—Transfer.—Mr. A. C. C. Rogers, Executive Engineer, fourth grade, temporary rank, is transferred, in the interests of the public service, from the Gunduck to the Arrah Division, which he joined on the forenoon of the 7th May 1883.

No. 231.—Leave.—Mr. J. Ramsay, Executive Engineer, first grade, Nagpore Railway Surveys, is granted six months' furlough, with the necessary subsidiary leave, with effect from the 1st instant, or such date as he may avail himself of it.

RAILWAY.

The 18th June 1883.

No. 232.—Declaration.—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for railway works in the villages of Madhabpur and Roynagar, pergunnah Mooragacha, zillah 24-Pergunnahs: it is hereby declared that for the above purpose a piece of land measuring 3 beeghas 13 cottahs and 10 chittacks, more or less, bounded on the north, by paddy fields in mouza Rainagore; on the east by the Government embankment; on the south by patit lands in mouza Madhabpore; and on the west by the Diamond Harbour creek, is required within the aforesaid villages of Madhabpur and Roynagar.

This declaration is made, under the provisions of section 6, Act X of 1870, to all whom it may concern.

G. F. E. S. NEILL, Major, M.S.C.,
Under-Secy. to the Govt. of Bengal, P. W. Dept.

[First Publication.]

IRRIGATION.

*Draft of the Revised Water-rate Rules for the Orissa Canals.**The 18th June 1883.*

No. 233.—Notification.—In exercise of the powers conferred on him by section 99 of Act III (B.C.) of 1876, the Hon'ble the Lieutenant-Governor is pleased to direct the publication of the following revised rules proposed to be passed in supersession of rules 5 and 31 passed under Notification No. 105 of the 26th July 1880, and published in the *Calcutta Gazette* for the 28th July 1880, Part I, pages 643 to 651.

RULE 5.—The rates chargeable per acre for the different descriptions of crops have been fixed up to the 1st of April 1883, and are as follows :—

	Flow.			Lift.		
	Rs.	A.	P.	Rs.	A.	P.
<i>For the rice crop.</i>						
I.—For the whole irrigable or rice cultivated area of any village if applied for up to the expiration of sanctioned rates	1	8	0	1	0	0
II.—For any fractional area of a village or for other term	3	0	0	2	0	0
<i>For cold-weather crops.</i>						
III.—Dalwa rice	1	8	0	1	0	0
IV.—For cotton, tobacco, huldi, ginger, wheat, vegetables, indigo, and all garden produce grown in villages, the rice lands of which are leased under rate I	1	0	0	0	10	0
V.—For the above produce when grown in villages the rice lands of which are not leased under rate I	2	0	0	1	8	0
VI.—For linseed, oilseed, dāl, and all pulses grown in villages, the rice lands of which are leased under rate I	0	8	0	0	5	0
VII.—For the above produce when grown in villages, the rice lands of which are not leased under rate I	1	0	0	0	10	0

For perennial crops.

VIII.—For sugarcane	6	0	0	4	0	0
IX.—The charge for filling tanks will be Re. 1 per 10,000 cubic feet of water used.						

RULE 31.—The dates of payment of water-rates shall be as follows :—

For rice .. 1st instalment ..	Two-thirds of the water-rate ..	1st January.
Ditto .. 2nd ditto ..	One-third ditto ..	1st May.
Sugarcane .. .. .	....	1st June.
Dalwa rice and cold-weather crops ..	....	1st August.

N.B.—The Lieutenant-Governor reserves the right of withdrawing the permission to pay water-rates on rice in two instalments, and of requiring payment in one instalment, payable on such date as he may fix, should an alteration in this respect be at any time considered desirable.

J. M. HEYWOOD, *Lieut.-Col., R.E.,*
Joint-Secy. to the Govt. of Bengal, P. W. Dept.

JAIL DEPARTMENT.

No. 5759, dated 14th June 1883.—Assistant Surgeon Jadubkristo Sen made over charge of the Bankoora Jail to Surgeon G. Price on the forenoon of the 11th June 1883.

A. S. LETHBRIDGE, *Inspector-General of Jails, Bengal.*

The 14th June 1883.

TREASURY NOTICE.

UNCOVENANTED DEPUTY COLLECTOR MR. F. GRANT has been placed in charge of the Doomka Treasury from the 4th instant and authorized to draw bills on other treasuries.

G. N. BARLOW, *Commissioner.*

COMMR.'S OFFICE, BHAGULPORE, the 9th June 1883.

EDUCATIONAL NOTICES.

List of Candidates who have passed the Examination for Sanskrit Titles held in April 1883 in accordance with the Resolution of Government dated 30th June 1878, together with the Titles and Rewards conferred on them.

Nos.	Names of candidates in order of merit.	Titles conferred.	Government rewards to pupils.	Private rewards to pupils.	Names of teachers.	Place of instruction.	Government rewards to teachers.	Private rewards to teachers.
			Rs.				Rs.	
SANSKRIT OR SANSKRIT LITERATURE.								
1	Baradakanta Bhattacharjya	Vidyalkar	.....	Jagomohan Mukerji prize of Rs. 50, and Raja Krishna Nath Ray Bahadur scholarship of Rs. 4 a month.	Saraprasanna Vidyaratna	Sanskrit tol, Mula-jor.	.....	Rajkrishna Ray stipend of Rs. 60.
2	Nivaran Bhattacharjya	Vidyaratna	.....	.....	Jayaram Nyaya Bhushan	Bhatpara	50	.....
3	Saradh Chandra Acharya	Kavyaratna	.....	.....	Yadu Nath Vidyaratna	Purasthali	100	.....
4	Bhudeo Bhattacharjya	Kaviratna	.....	.....	Gopal Chandra Chudamani	Anukhalbele	.....	.....
5	Dhisanand Chakravarti	Kavyandhi	.....	.....	Aghor Nath Tatvaudha	Burdwan	.....	.....
6	Raghu Nathprasad Tripathi	Ditto	.....	.....	None	None	.....	.....
7	Prasanna Kumara Bhattacharjya	Vidyaratna	.....	.....	Professor, Sanskrit College	Sanskrit College, Calcutta.	.....	.....
8	Mahendra Nath Bhattacharjya	Kavyaratna	.....	.....	Amritamara Vidyaratna	Bhatpara	.....	.....
9	Akshaya Narayan Bhattacharjya	Kavyabhushan	.....	.....	Dwarkanath Nyaya Bhushan	Svadighi	.....	.....
10	Prakash Chandra Bhattacharjya	Vidyalkar	.....	.....	Chandra Kumara Tarkaratna	Schilpur	.....	.....
11	Kedaraswar Bhattacharjya	Vidyaratna	.....	.....	Chandra Kanta Tarkalankar	Town Sherpur	.....	.....
12	Mahendra Nath Bhattacharjya	Vidyalkar	.....	.....	Kali Kumar Kavikantha	Ketrong	.....	.....
13	Ananta Ratha	Vidyabhushan	.....	Gourishyan scholarship of Rs. 40.	Kasi Nath Vidyaratna	Dhonkanal School	60	.....
14	Kaliprasanna Bhattacharjya	Kavyakantha	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
15	Purna Chandra Bhattacharjya	Kavyabhushan	.....	.....	Jayaram Nyaya Bhushan	Bhatpara	.....	.....
16	Chandra Bhushan Bhattacharjya	Kavyaratna	.....	.....	Yadunath Vidyaratna	Purasthali	.....	.....
17	Dinabandhu Das	Kavibhushan	.....	Raja Svamananda De scholarship of Rs. 30.	Kasinath Vidyaratna	Dhonkanal School	.....	.....
SMRITI OR HINDU LAW (MODERN.)								
1	Durgaprasanna Bhattacharjya	Smritiratna	50	Prasanna Kumara Tagore scholarship of Rs. 4 a month.	Rajani Kanta Vidyaratna	Sanskrit tol, Mula-jor.	200	.....
2	Girish Chandra Bhattacharjya	Smritibhushan	25	Raja Lok Nath Ray Bahadur scholarship of Rs. 7 a month.	Sasibhushan Smritiratna	Bajrajogini	.....	Keshoamani Devya stipend of Rs. 60.
3	Jagadish Bhattacharjya	Smritiratna	.....	Parvati Devi prize of Rs. 50	Tarini Charan Siromani	Bhojsewar	100	.....
4	Kalikashor Bhattacharjya	Ditto	.....	Narayan Acharya Chundhuri prize of Rs. 50.	Jagach Chandra Sarvabhoom	Fursail	60	.....
5	Sasibhushan Bhattacharjya	Smritibhushan	.....	Burdwan scholarship of Rs. 50.	Rajani Kanta Vidyaratna	Sanskrit tol, Mula-jor.	.....	.....
6	Ditto ditto	Smritiratna	25	.....	Tarini Charan Siromani	Bhojsewar	.....	.....
7	Chandrasekanta Bhattacharjya	Smritikantha	25	.....	Jagut Chandra Sarvabhoom	Fursail	.....	.....
8	Yogendra Nath Bhattacharjya	Smritibhushan	25	.....	Madhusudan Smritiratna	Calcutta	50	.....
9	Uma Chandra Bhattacharjya	Smritisriomani	25	Silver medal of Mahendro Nath Mitra.	Krishna Nath Nyayapanchan	Purasthali	200	.....
10	Krishnaraman Goswami	Smritipanchan	25	.....	Kali Charan Tarkalankar	Vikrampore	.....	Burdwan prize of Rs. 50.
11	Radha Govinda Bhattacharjya	Smritichandramani	.....	Durbhanga prize of Rs. 20.	Dina Nath Nyayapanchanan	Janaidanga	.....	.....
12	Rajani Kanta Chatterji	Smritibhushan	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
13	Bhavader Bhattacharjya	Smritipanchan	.....	.....	Taragati Tarkalankar	Vaidyapati	.....	.....
14	Akshaya Kumar Bhattacharjya	Smritikantha	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
15	Mukunda Chandra Bhattacharjya	Smritiratna	.....	.....	Rajani Kanta Vidyaratna	Sanskrit Tol, Mula-jor.	.....	.....
16	Sital Chandra Bhattacharjya	Smritichandramani	.....	.....	Krishna Nath Nyayapanchanan	Purasthali	.....	.....
17	Bharatikanta Bhattacharjya	Smritibhushan	.....	.....	Rajani Kanta Vidyaratna	Sanskrit tol, Mula-jor.	.....	.....
18	Jagach Chandra Bhattacharjya	Smritipanchan	.....	.....	Gurudas Siddhantabagisa	Muktageobha	.....	.....
19	Uma Nath Bhattacharjya	Smritisriomani	.....	.....	Krishna Nath Nyayapanchanan	Purasthali	.....	.....
20	Hari Nath Bhattacharjya	Smritikantha	.....	.....	Ditto ditto	Ditto	.....	.....
21	Sphatik Chandra Bhattacharjya	Smritiratna	.....	.....	Ditto ditto	Ditto	.....	.....
22	Bhaskeswar Bhattacharjya	Smritichandramani	.....	.....	Ditto ditto	Ditto	.....	.....
23	Goursunder Bhattacharjya	Smritiratna	.....	.....	Navakishor Turka Chaudramani	Ketibali	.....	.....
DARSANA OR HINDU PHILOSOPHY—(A) HINDU LOGIC.								
1	Rajani Kumara Banerji	Tarkaratna	50	Harakumar Tagore gold medal, Dewan Krishna Kanta Bahadur scholarship of Rs. 8 a month.	Hari Nath Tarkasiddhanta	Sanskrit tol, Mula-jor.	50	.....
2	Anantosh Bhattacharjya	Tarkabhushan	.....	Raja Hari Nath Ray Bahadur scholarship of Rs. 8 a month.	Ramdhap Tarkapanchanan	Karakdi	.....	.....
3	Sarvabanda Bhattacharjya	Tarkaratna	.....	.....	Hari Nath Tarkasiddhanta	Sanskrit tol, Mula-jor.	.....	.....
(C)—VEDANTA PHILOSOPHY.								
1	Hari Nath Bhattacharjya	Vidantabagisa	.....	Parvati Devi prize of Rs. 50.	Subrahmanya Sastri	Bonares	.....	Burdwan prize of Rs. 50.
(D)—SANKHYA PHILOSOPHY.								
1	Ramtanu Bhattacharjya	Sankhyachun-cha.	100	Durbhanga scholarship of Rs. 10 a month. Jagomohan Mukerji prize of Rs. 50.	Chandra Kanta Tarkalankar	Town Sherpur	.....	Rajkrishna Ray stipend of Rs. 60.
2	Purna Chandra Bhattacharjya	Sankhyabhushan.	100	Burdwan scholarship of Rs. 60.	Kailas Chandra Siromani	Bonares	50	.....

MOHESCHANDRA NYAYARATNA,
Offg. Principal, Sanskrit College.

Department Public Works Half-yearly Examination.

THE half-yearly examination of candidates for promotion and employment in the Public Works Department will be held at the Government Engineering College, Howrah, at 10 o'clock on Monday, the 6th August 1883, and the following days. Applications, with fees, for admission to the examination are required to be filed before the 15th of July 1883. Candidates for the grade of accountant, who are not in Government service, should be under 25 years of age, and must prove to the satisfaction of the Principal that they are under that age.

The following are the centres of Examination sanctioned by the Government of India as stations where candidates for fourth grade accountantships are to appear for examination:—

Ajmere, Allahabad, Durbhunga, Ghadechi, Howrah, Indore, Lahore, Lucknow, Mount Abu, Nagpore, Poona, Rangoon, Rawal Pindi, Saidpore, Secunderabad, Sukkur, Simla, and Shillong.

Candidates for the Accountant's examination are therefore requested to select one of the places mentioned above.

S. F. DOWNING,

Principal, Government Engineering College, Howrah.

SHIBPORE, the 18th June 1883.

NOTIFICATION OF THE BOARD OF REVENUE.

No. 627B.

NOTICE is hereby given that the Seventh Sale of Opium, the provision of 1881-82, will be held at the Government Opium Sale-room, No. 2, Bankshall-street, on Tuesday, the 3rd July 1883, at 11 A.M., and will comprise 4,700 chests, viz:—

	Chests.
Opium manufactured at the Patna Factory, consisting of 75° consistence ..	2,350
Do. do. do. Ghazipore Factory, consisting of 72° consistence ..	2,350
Total ..	4,700

2. The general conditions of the sale now advertised will be the same as usual. They may be ascertained by reference to the Notification issued on the 28th November 1882, and published in the *Government and Exchange Gazettes*, or on personal application at the office of the Board of Revenue.

3. The latest dates for deposit and clearance will be the 9th and 18th July 1883, respectively—that is to say, no Bank or Bengal Receipts, Government Promissory Notes, or other public securities that may be tendered for deposit in redemption of Promissory Notes given by purchasers in the sale-room will be received after 3-30 P.M. of Monday, the 9th July 1883, and no Bank or Bengal Receipts in full payment of lots will be accepted after 3-30 P.M. of Wednesday, the 18th July 1883.

4. Including the quantity above advertised for sale, the following quantities, more or less, of the Opium manufactured at the Patna and Ghazipore Factories will be brought to sale up to March 1884 about the dates specified below. The Board of Revenue, however, reserve to themselves the right of altering these dates should circumstances render it expedient to do so:—

Dates.		Manufactured at the Patna Factory, about chests.	Manufactured at the Ghazipore Factory, about chests.	Total, about chests.
On or about Tuesday,	3rd July 1883 ...	2,350	2,350	4,700
Do. about Thursday,	2nd August ,, ...	2,225	2,225	4,450
Do. about Monday,	3rd September ,, ...	2,225	2,225	4,450
Do. about Wednesday,	26th ,, ,, ...	2,225	2,225	4,450
Do. about Thursday,	1st November ,, ...	2,225	2,225	4,450
Do. about Monday,	3rd December ,, ...	2,225	2,225	4,450
Early in January	1884	The number of chests of each kind to be sold each month will be advertised hereafter.		4,450
Do. February	,,			4,450
Do. March	,,			4,450
Total		.....	.....	40,300

By order of the Board of Revenue, L.P.,

O. E. BUCKLAND, *Offg. Secretary.*

BOARD OF REVENUE, L.P., FORT WILLIAM, the 29th May 1883.

No. 6874B.

With reference to the provision contained in clause C, section 51 of the Indian Stamp Act, I of 1879, which requires that, in the event of the impressed stamp used for any bill-of-exchange, &c., signed by the drawer thereof being spoiled or rendered useless in consequence of any error or omission, another completed or duly stamped bill-of-exchange shall be produced identical in every particular with the spoiled bill, except in the correction of such error or omission, before allowance can be made for the stamps spoiled: it is hereby notified for the information of the public that the Governor-General in Council has authorized the Collector of Stamp Revenue, Calcutta, to renew the stamps used for bills-of-exchange, which have become spoiled in consequence of mistake or error in drawing out the document, after the Collector has satisfied himself by evidence that a fresh set of bills-of-exchange has been executed in each case, and that application for such renewal has been made within ten working days from the date of the bill-of-exchange in respect of which the renewal of the stamp was required.

By order of the Board of Revenue, L.P.,

C. E. BUCKLAND, *Offg. Secretary.*

BOARD OF REVENUE, FORT WILLIAM, the 19th June 1883.

1st Section

[REGISTERED No. 29.]

No. 26 of 1883.



The Calcutta Gazette.

WEDNESDAY, JUNE 27, 1883.

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Part IA is not sent to officers receiving the Gazette of India.

PART I.

Orders and Notifications by the Lieut.-Governor of Bengal,
the High Court, Government Treasury, &c.

ORDERS BY THE LIEUT.-GOVERNOR OF BENGAL.

No. 1716A.

GENERAL.—*The 16th June 1883.*—The order of the 5th May last, granting privilege leave for one month to Baboo Pitamber Banerjee, Sub-Deputy Collector, Backergunge, is cancelled.

The services of Moulvie Fuzlul Karim, Temporary Deputy Magistrate and Deputy Collector, Backergunge, are placed temporarily at the disposal of the Revenue Department of this Government.

The 18th June 1883.—Baboo Doorga Mohun Ghose, Sub-Deputy Collector, Backergunge, is allowed leave for two months, under section 127, chapter X of the Civil Leave Code, with effect from the 6th April 1883.

The 19th June 1883.—Mr. G. A. Grierson, Officiating Magistrate and Collector, Patna, is allowed leave for three months, under section 71, chapter V of the Civil Leave Code, with effect from the 16th proximo, or such subsequent date as he may avail himself of it.

Baboo Dwarka Nath Mookerjee, Temporary Deputy Magistrate and Deputy Collector, on special duty, Sarun, is allowed leave for nine days, under section 71, chapter V of the Civil Leave Code, in extension of the leave granted to him under the order of the 26th ultimo.

The 25th June 1883.—Mr. C. E. Buckland is appointed to act, until further orders, as Magistrate and Deputy Collector of Howrah on being relieved of his present appointment as Officiating Junior Secretary to the Board of Revenue by Mr. A. Forbes.

Mr. E. V. Westmacott, Officiating Magistrate and Deputy Collector, Howrah, is appointed to act, until further orders, as Magistrate and Collector of Hooghly.

Mr. F. Wyer, Magistrate and Collector, Hooghly, is appointed to act, until further orders, as Magistrate and Collector of Dacca.

POLICE.—*The 23rd June 1883.*—Mr. H. M. Reilly, District Superintendent of Police, Burdwan, is transferred to Moorshedabad.

Mr. R. F. Guise, Assistant Superintendent of Police, in charge of the District Police, Pooree, is appointed to act, until further orders, as District Superintendent of Police, Burdwan.

Mr. W. D. Abercrombie, Assistant Superintendent of Police, is appointed to have charge of the District Police, Pooree, on being relieved of his present appointment as Officiating District Superintendent of Police, Moorshedabad.

Mr. E. Muspratt, Officiating Assistant Superintendent of Police, is posted to Burdwan, with effect from the date on which he joined that district, after being relieved of his duties as Assistant Superintendent of Jails, Alipore.

ECCLESIASTICAL.—*The 18th June 1883.*—The Rev. A. Kitchen is appointed to act as Chaplain of St. James' Church, Calcutta, during the absence, on leave, of the Rev. J. O. F. Willcocks, or until further orders, with effect from the 30th May 1883.

Baboo Toruntee Misser, of the Native Baptist Mission Church, Monghyr, is granted a license, under clause 5, section 5, Act XV of 1872, authorizing him to grant certificates of marriage between Native Christians.

The 25th June 1883.—The Rev. H. Finter is appointed to be River Chaplain of Calcutta with effect from the 1st instant.

The 26th June 1883.—The services of the Rev. J. O. F. Willcocks, late Chaplain of St. James' Church, are placed at the disposal of the Government of the North-Western Provinces and Oudh, with effect from the 22nd instant.

EDUCATION.—*The 21st June 1883.*—Mrs. M. Wheeler, Inspectress of Schools, acted in class III of the Bengal Subordinate Educational Service, with effect from the 1st March 1883, vice Baboo Beni Madhav Dê, Head Master, Howrah Zillah School, on leave.

Baboo Pitamber Dê, Officiating Head Master, Howrah Zillah School, acted in class IV of the Bengal Subordinate Educational Service, with effect from the 1st March 1883, vice Mrs. M. Wheeler.

MEDICAL.—*The 4th June 1883.*—Assistant Surgeon Kamikha Nath Acharjee, a Supernumerary at the Presidency, is appointed to be Teacher of Medicine and Midwifery, Dacca Medical School, vice Assistant Surgeon Doorga Das Roy.

Assistant Surgeon Gopal Chunder Chatterjee, in charge of the Raj Hospital, Durbhunga, is appointed to be Teacher of Anatomy (including Physiology) and Surgery, Dacca Medical School, vice Assistant Surgeon Kassi Chunder Dutt.

Assistant Surgeon Nobin Chunder Dutt, in temporary medical charge of the civil station of Julpigoree, is appointed to have charge of the Raj Hospital, Durbhunga, vice Assistant Surgeon Gopal Chunder Chatterjee, but will continue to hold his present appointment, until further orders.

Assistant Surgeon Kali Nath Banerjee, a Supernumerary at Howrah, is appointed temporarily to have charge of the Raj Hospital, Durbhunga, during the absence, on deputation, of Assistant Surgeon Nobin Chunder Dutt, or until further orders.

The 12th June 1883.—Assistant Surgeon Amirto Lall Mookerjee, House Surgeon of Ophthalmic Ward, Medical College Hospital, Calcutta, is allowed leave for one year, under section 133, chapter X of the Civil Leave Code, with effect from such date as he may be relieved of his present appointment.

Assistant Surgeon Khirad Kumar Dutt, a Supernumerary at the Presidency, is appointed to be House Surgeon, Ophthalmic Ward, Medical College Hospital, Calcutta, vice Assistant Surgeon Amirto Lall Mookerjee.

The 18th June 1883.—Assistant Surgeon Protap Chunder Ker was in medical charge of the Kandi sub-division of the district of Moorshedabad from the 1st February to the 30th April last, in addition to his duties in connection with the Kandi Dispensary.

MUNICIPAL.—*The 9th June 1883.*—The following gentlemen are appointed to be Commissioners of the Madhubani Municipality, in the district of Durbhunga:—

Munshi Wajid Hossain.
Baboo Ram Persad.

Baboo Lal Sahai.
„ Gonesh Jha.

The 11th June 1883.—The following gentlemen are appointed to be Commissioners of the municipality of Lalbagh, in the district of Moorshedabad:—

Baboo Chunder Shekhar Sen.

Baboo Bhairab Dan Shajone.

Mahomed Mirza.

The following gentlemen are re-appointed to be Commissioners of the above municipality:—

Synd Mozaffer Ali.
Baboo Dwarka Nath Ghose.

Baboo Ram Krishna Mahata.
„ Budh Sing Dudhuria.

The following gentlemen are appointed to be Commissioners of the Kotechandpore Municipality, in the district of Jessore:—

Mr. A. H. Newhouse.
Baboo Gour Chunder Biswas.
„ Ram Krishna Bhattacharjya.
„ Iswar Chandra Biswas.

Baboo Chunder Kant Mitter.
„ Mohim Chandra Singha.
„ Sriram Chandra Aus.
Toib Biswas.

The 16th June 1883.—The Lieutenant-Governor approves the election by the Commissioners of the Ranchee Municipality of Dr. F. R. Swaine, Civil Surgeon, Ranchee, to be their Vice-Chairman.

Munshi Chundi Pershad is appointed to be a Commissioner of the above municipality.

The 22nd June 1883.—The Lieutenant-Governor approves the re-election by the Commissioners of the Bhuddessur Municipality of Babu Rajkissen Banerjee to be their Vice-Chairman.

Mr. B. F. Guise, Assistant Superintendent of Police, is appointed to be a Commissioner of the municipality of Pooree, *vice* Mr. I. Clark, transferred.

ROAD CESS—*The 18th June 1883.*—Baboo Surjman Jha is appointed to be Vice-Chairman of the Muddehpooa Branch Road Committee, *vice* Baboo Shyamapodo Ghose, resigned.

The following gentlemen are appointed to be members of the Khoorda Branch Road Committee :—

Mr. E. Wylly, Forest Officer.

Baboo Bhaghat Mohanty, Tehsildar.

Mr. C. A. W. Fordyce, Temporary Sub-Deputy Collector.

Baboo Bidyadhur Mohapatra, Manager, Bhubaneswar Temple.

„ Bhughan Patnaik.

„ Sadhu Charan Patnaik.

„ Chintamani Patnaik.

„ Raghunath Routra.

„ Satrugnan Baliarsing.

„ Bonomali Patnaik.

„ Madhab Santra.

„ Baisnab Charan Patnaik.

The following notifications are re-published from the *Assam Gazette* :—

No. 146.—The 13th June 1883.—Privilege leave of absence for three months, under section 71, chapter V of the Civil Leave Code, is granted to Mr. J. Knox Wight, c.s., Officiating Deputy Commissioner, Cachar, with effect from the 8th July 1883, or the subsequent date on which he may avail himself of it.

No. 147.—Mr. G. W. Place, c.s., Officiating Assistant Commissioner, first grade, is appointed to officiate as Deputy Commissioner of Cachar during the absence, on leave, of Mr. J. Knox Wight.

No. 150.—Privilege leave of absence for one day is granted to Mr. J. D. Anderson, c.s., Assistant Commissioner, Habiganj, in the district of Sylhet, in extension of the leave, for two weeks, granted to him in Notification No. 69, dated the 29th March 1883.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

NOTIFICATION.

The 11th June 1883.—In the exercise of the powers conferred on him by section 8 of Act V (B.C.) of 1876, the Lieutenant-Governor extends, with effect from the 1st July 1883, the provisions of chapters I, II, and V of the Act to the Kotechandpore Union, in the district of Jessore. The Kotechandpore Municipality shall, for the purposes of the Act, be a second class municipality, and its boundaries shall be as follow :—

On the north—The villages of Parla, Fulbari, Rudrapur, and Bulrampore.

On the west—The villages of Bhabanipore and Baluhar.

On the east—The villages of Kashipore, Balabaria, and Pashpatia.

On the south—The river Kabadak.

COLMAN MACAULAY,
Secretary to the Government of Bengal.

NOTIFICATION.

The 19th June 1883.—It is hereby notified that, under section 3, Regulation VI of 1819, the Lieutenant-Governor declares the ferry between Subarnakhali in Mymensing and Serajgunge in Pabna, on the river Jamuna, to be a public ferry.

COLMAN MACAULAY,
Secretary to the Government of Bengal.

NOTIFICATION.

The 21st June 1883.—The declaration published at page 424, part I of the *Calcutta Gazette* of the 23rd May last, regarding the acquisition of the two plots of land required by the Behar Municipality, is hereby cancelled.

COLMAN MACAULAY,
Secretary to the Government of Bengal.

NOTIFICATION.

The 19th June 1883.—Whereas a notice was published in the *Calcutta Gazette* of the 11th April last, declaring the intention of the Lieutenant-Governor to withdraw the villages of Moheshpore, Roghunathpore, Koolbyra, Gheea, and Teygharia, included in the Jehanabad Union, in the district of Hooghly, from the operation of the Bengal Municipal Act, V (B.C.) of 1876, and whereas no objection has been raised to the proposed measure within one month of the publication of the notice within the limits of the union, the Lieutenant-Governor, in the exercise of the powers conferred on him by section 10 of the Act, directs that the withdrawal of the villages from the operation of the above Act shall take effect from the 1st July 1883.

COLMAN MACAULAY,
Secretary to the Government of Bengal.

ERRATUM.

The 23rd June 1883.—In the orders dated the 30th May 1883, published at page 452, part I of the *Calcutta Gazette* of the 6th instant, appointing certain gentlemen to be Commissioners of the Jamalpore Municipality, in the district of Monghyr, for "Mr. J. Curtis" read "Mr. T. Curtis," and for "Mr. C. J. Davis" read "Mr. C. J. Davies."

COLMAN MACAULAY,
Secretary to the Government of Bengal.

[First Publication.]

NOTIFICATION.

The 20th June 1883.—It is hereby notified, under section 19 of the Indian Forest Act (Act VII of 1878), that the following tract of land in the Hazaribagh district, which, in a notification dated the 19th October 1882, published at page 896 of the *Calcutta Gazette* of the 1st November 1882, it was proposed to constitute a reserved forest, shall, from the 1st July next, be a "Reserved Forest" under the said Act:—

DISTRICT.	Pergunnah or other sub-division.	Name of forest.	Boundaries.
Hazaribagh	Koderma	An addition to the Koderma forest reserve.	<p><i>North.</i>—From the northern point of the present forest reserve, along the Gya district boundary, to a point about half a mile north-west of Kurharia.</p> <p><i>West.</i>—A demarcated line along the foot of the Doorbasha hill in an easterly direction to a point about one mile north-east of Bishneetkur; then due south to the Phutlahi nadi; then in a westerly direction to the Gya district boundary, and along that boundary to a point on the Hileya nadi, about one mile east of Bishenpore; then up that nadi for about half a mile; then a demarcated line nearly due west to the Binda nadi; then up the Binda nadi to a point half a mile north-west of the village Bara Khouda.</p> <p><i>South.</i>—A demarcated line due east to the Saganwa Seemur nadi; then up that nadi to post 147 of the present forest reserve boundary.</p> <p><i>East.</i>—The forest reserve as at present demarcated.</p>

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 19th June 1883.—The following notice is published for general information.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

GOVERNMENT OF BENGAL, GENERAL (MARINE) DEPARTMENT.

NOTICE TO MARINERS.—(No. 24.)

CEYLON—EAST COAST.

TRINCOMALIE.

Rock off York Shoal.

INFORMATION has been received from the Naval Commander-in-Chief in the East Indies of the existence of a sunken rock (on which the steam-ship *Kerbela* struck) lying in the approach to the Merchant Ships' anchorage at the entrance to the Inner Harbour of Trincomalie.

The rock, with a least depth of 15 feet over it at low-water, lies one cable North from the centre of York Shoal, with the following bearings:—

Dockyard flagstaff	..	..	..	S. 18° E.
West extreme of York Shoal	..	..	..	N. 87° E.

This new danger, not marked on charts, consists of a rocky, uneven bottom, with soft mud all round, the shoalest part being almost a pinnacle, and difficult to find with a lead. The approach is sudden on the North side, but between the rock and York Shoal there are five fathoms of water.

By direction of the Government of Bengal,
J. MENTEITH BREEBNER,
Offg. Port Officer of Calcutta.

CALCUTTA PORT OFFICE, the 16th June 1883.

[Second Publication.]

NOTIFICATION.

The 19th June 1883.—The following sailing directions and Hydrographic descriptions of the port and approaches to Chittagong, and Hydrographic information regarding the Burabalang River, the roadstead of Balasor, and the Dhamra and Baitarani Rivers with the port of Chandbali, are published for general information.

BAY OF BENGAL—ORISSA COAST.

BURABALANG RIVER AND BALASOR.

✓ All bearings are Magnetic—Variations in 1883, 2° 40' E.

THE following hydrographic information regarding the Burabalang River and roadstead of Balasor has been received from Commander L. S. DAWSON, R.N., in charge of the Marine Survey of India, 1883.

BURABALANG RIVER. literally "The Old Twister," rises among the Morbhanj Hills in latitude 21° 24' N., and longitude 86° 36' E., and after receiving two small tributaries, the Gangahar and Sunai, wriggles into the sea in latitude 21° 28' N. and longitude 87° 5' E. The tide runs up twenty-three miles. In the upper parts of its course the banks are sandy, steep, and cultivated; in the lower part, they are of firm mud, covered to high-water mark with black slime and surrounded by jungle or open grassy plains. Native craft and small sea-going steamers of nine feet draught can navigate as far as the town of Balasor, about sixteen miles up its twisting course, but the sand-bar across the mouth of the river renders the entrance difficult.

While inside Gymkhana bar, about a mile below Balasor, is an unavoidable obstruction, extending, as it does, between sand banks and carrying over it from one to two feet at low water.

The course up the river was formerly marked by beacons, but of recent years these appear to have been discontinued.

A project for rendering the course of the river shorter and more direct has been discussed, it being expected that such a measure would add to the tidal scour and deepen the channel over the outer bar, but the engineering opinion formed, however, did not permit any definite conclusion being arrived at, it being considered by some that the opposite results might thereby be caused.

A cut was made in 1863, shortening the course of the river by a mile, but no observations of the results produced were taken.

THE COAST in the neighbourhood of the mouth of the Burabalang appears from the offing, sandy and barren, about four miles to the northward of the entrance. Sand hills of mottled grey and yellow colour will be noticed, while on the fringe of low sand hill to the southward of the river, and bordering the coast, Chandipore flagstaff, near a large white bungalow, can easily be recognized. A single palm tree, known to those who resort to the river, forms a good mark also; but it is difficult to detect by a stranger. It bears from Chandipore flagstaff N. 44 E., distant one mile seven cables nearly.

BALASOR ROADS. in about latitude 21° 28' N., in the north-west part of the Bay of Bengal, are largely resorted to in the north-east monsoon by vessels bound to Mauritius and elsewhere for cargoes of rice brought down the Burabalang by large cargo boats. Sloops from the Madras coast and the Laccadive and Maldivé Islands also annually resort to Balasor port for the same cargo.

The largest native vessels which ascend to Balasor or receive their full cargo in the river are of about 4,000 maunds (145 tons) burden.

The best mark for making the anchorage will be found in the highest part of the Nilgiri Hills, situated about 15½ miles inland, and bearing about W.N.W.

The holding ground is of stiff mud, and the best anchorage for a vessel of 20 feet draught will be found with Chandipur flagstaff bearing N. 66 W. Highest peak of Nilgiri Hills N. 81 W., and the single palm tree on the north bank of the entrance to the river, N. 51° W. This position will place a vessel about 5½ miles off shore, and 2 miles 7 cables distant from the anchoring buoy in 4 fathoms at low-water spring tides.

BURABALANG RIVER ENTRANCE is 400 yards in width, and has a depth at low water of from 21 to 23 feet; but is almost closed by an extensive bar spread out between continuous banks of mud and sand,

having its northern limit at about half a mile south, and reaching as far southward and seaward as two miles from the river entrance.

BALASOR BAR had over it, in 1883, at low-water spring tide, two feet of water, and with a south-easterly wind, was observed to break right across. The last quarter flood-tide is the best time for crossing.

BUOYS.—In 1883, the following were the buoys with their respective positions at the entrance of the Burabalang River.

ANCHORING BUOY is a black beacon buoy with staff surmounted by a cago. On one side it has an anchor, and on the opposite side the letter B, both painted in white. The depth at low-water spring tides at this buoy is 18 feet, and it bears from Chandipur flagstaff on the sand hills bordering the coast on the south side of the entrance of the Burabalang River S. 53 E., distant nearly 4 miles. By noting the depth at the anchoring buoy and comparing with the chart, the depth on the outer bar and in the river generally may be ascertained.

A **RED CAN BUOY** termed the "outer bar buoy," is moored in 9 feet at low water, with Chandipur flagstaff bearing N. 53 W., distant 2 miles $4\frac{1}{2}$ cables and single palm tree bearing N. 16 W., distant 2 miles 8 cables.

A **RED BUOY** known as Elfin flat buoy, from the shoal ground it is intended to mark, in 1883 was moored in 4 feet at low water, with Chandipur flagstaff bearing N. 70° W., distant 1 mile $\frac{1}{2}$ cable.

A **BLACK BUOY**, termed the "inner bar buoy" is moored in 5 feet at low water, with Chandipur flagstaff bearing S. 72° W., distant 1 mile 2 cables, and single palm tree N. 1° E distant $8\frac{1}{2}$ cables.

CHANDIPUR FLAGSTAFF bears S. 44 W., distant 1 mile 7 cables from single palm tree on the north bank of the Burabalang River. It is 60 feet high, and stands on a sand hill 53 feet above sea-level.

LIGHT.—A lantern, exhibiting a fixed white light, is hoisted on Chandipur flagstaff from sunset to sunrise; it is elevated 106 feet above the sea, and should be visible from a distance of 5 miles.

A **TIDE GAUGE** is placed $5\frac{1}{2}$ cables westward of and inside the entrance of the Burabalang River; it is near the south or right bank of the river, and about a cable westward of it is the landing pier connecting with the road which leads to the town of Balasor.

DIRECTIONS FOR ENTERING.—From the anchoring buoy steer direct for the single palm tree on the north bank at the entrance of the Burabalang River on a N. 26 W. bearing for one mile 6 cables, or until the second red buoy from the outside, termed Elfin flat buoy, is seen just open northward of Chandipur flagstaff, with the latter bearing N. 68 W., when alter course for Chandipur flagstaff upon the bearing and with the red buoy just described left open. This will lead in the deepest water over the outer bar, care being taken, if the flood tide be making, not to be set to the northward of the leading mark.

When the inner bar buoy, which is black, comes in line with the single palm on the north point of the entrance to the river, alter course, keeping the two in line on N. 6° E. bearing and passing on the east side of the black buoy, after passing which, alter course to north by east or with the palm tree half a point on the port bow. This leads in the deepest water until abreast the single palm tree; the best course then along the first reach which trends about west by north, is at about a cable's distance from the northern or left bank until abreast Chota Ghira Point, which is $5\frac{1}{2}$ cables westward of the house on the north bank known as Balramgari. At Chota Ghira Point the river takes a sharp turn to S. by E., and it is here advisable, if in a steam-vessel, to slow the engines and use plenty of helm.

The channel, after passing Chota Ghira Point, is near the east bank of the river; the western bank in this reach being low and swampy and fringed with jungle.

This second reach runs at first S. by E., gradually curving round to S by W., and is $1\frac{1}{2}$ miles in length. The central part is comparatively shoal, having depths extending for half a mile of 9 and 10 feet at low water.

The third reach turns gradually round a low tongue, and doubles back on the second reach, running for a mile north by east finishing by turning at right angles to the westward round Ghentee Point. The channel, which in the second reach and bend has been near the western and southern shore, or right bank, in the third reach changes to the eastern shore, or left bank. The southern part of the third reach has only from 9 to 10 feet of water over its southern part.

The fourth reach pursues a serpentine, but on the whole, westerly course, and at 7 cables westward of Ghentee Point is obstructed by the

Dinga bar, formed by a flat of sand extending from the southern shore more than half way across the river. Between this flat and the northern or left bank the depths at low water is from 6 to 7 feet; and here it is necessary to pick the way carefully by means of the lead, borrowing throughout in the fourth reach, after passing Ghentee Point, on the northern shore or left bank of the river.

Dinga bar passed, the channel changes over to the southern or left bank of the river, and has depths of from 14 to 22 feet, until the latter part of the fourth reach in the neighbourhood of Whoarguddee is approached, where depths of 10 and 11 feet will again be found unavoidable.

The country now, which so far has consisted on the right bank of an extensive maidan or grassy plain and on the left of jungle, opens out, and at Chargutia, just above Whoarguddee, has a considerable clearing for clay fields and rice cultivation. From thence onwards to Balasor, the land presents civilized features—rice fields, workshops, and huts for the Calcutta Coast Canal works meeting the eye from a vessel's deck.

JUNGLE POINT is the extremity of the peninsula, abutting into the land near Whoarguddee. The river takes a sharp trend to the eastward, its general direction throughout the next or fifth reach being E.S.E. for a mile and two cables, the northern part of this bank of the river washing the south shore of the part known as Chargutia. This, the fifth reach, carries in its deepest channel depths of from 9 to 12 and 18 feet, and the chart is the best guide to the navigator.

Rounding Chargutia Point somewhat suddenly the river now enters its sixth decided reach, which extends in a westerly direction for $1\frac{1}{2}$ miles, terminating at Buboor Point. The first part of the sixth reach has a north-westerly trend for six cables, where a detached sand bank, dry at low water, about three cables in length by half a cable in breadth, is situated, but is half tucked into a hollow in the northern bank. The depth of the navigable part of the river in the sixth reach is from 3 to 10 feet, the channel passing southward of the detached sand bank and then gradually crossing to the northern or left bank of the river. Above and parallel to the detached sand bank just described a finger-like sand bank runs in a westerly direction along the south or right bank, for a distance of nearly seven cables. The deepest part of the river in this part of sixth reach is mid-stream between the sand banks, and then towards the northern shore again crossing to the south shore or right bank, as Buboor Point is approached.

CANAL WORKS.—At $2\frac{1}{2}$ cables' distance eastward from Buboor Point, and on the south or right bank of the river, is the spot where the connection of the Calcutta Coast Canal with the Burabalang River is proposed to take place to the southward. The northern connection is intended to be at a position some $6\frac{1}{2}$ cables to the northward of Buboor Point, the Burabalang River between these points entering into, or forming part of, the canal. These works in 1883 were in an advanced state, and it is contemplated that when completed a canal connecting Calcutta and Cuttack will be formed having a minimum depth of 4 feet at low water and a bottom breadth of 50 feet.

Seventh reach maintains a northerly trend at right angles to sixth reach, and extends for a mile in that direction. A detached sand bank, 4 cables long north and south, by three-quarters of a cable broad, blocks up the greater part of seventh reach. On the east side of this sand bank is a narrow channel carrying three feet of water. The navigable channel, however, lies on the west side of the sand bank, and is about half a cable in breadth, carrying depths at low water of three and four feet. This part of the river is known as Buboor bar. On the eastern or left bank of the river, and near the northern end of seventh reach, it Nulcolee, the name given to the village which has sprung up around the works, houses, &c. of the Engineers employed on the Calcutta Coast Canal, excavations for which are taking place close at hand. Opposite to Nulcolee is Nudiapha Point, which is a considerable tongue protruding in a northerly direction. The river from seventh reach winds round it, assuming a south-westerly trend for a mile to Pukarabhar on the north bank opposite to the entrance of the old canal, which disembogues on the south or right bank, then a direction of west by north for seven cables to Gymkhana, and again a south-westerly trend for $5\frac{1}{2}$ cables, which brings a vessel to the point, known as Mahomed Pau, which is the last point before Bala-or port is reached.

In the eastern part of this, the eighth reach, clay excavations and brick-making for the canal works appeared in full operation in 1838. At Pukarabhar, on the north bank, is a collection of houses backed by some tall trees, and to the southward at a distance of four cables from the river's bank is the bungalow of the Engineer in charge of the canal works.

CANAL ISLAND—So formed by the junction of an old and new canal, fronts the river forming the southern shore opposite to Pukarabhar.

Between Canal Island and Gymkhana on the north bank of the river narrows to a breadth of half a cable, and the channel continuing on the Canal Island, or south side of the river, for a distance of four cables westward of the south-west point of Canal Island, then changes to the opposite southern or left bank, continuing on that side until nearly abreast of Mahomed Pau Point.

Midway between Pukarabhar and Gymkhana, is the Gymkhana bar, consisting of sand, over which, at low-water spring tides, there is a depth of one foot only.

About two cables north-eastward of Mahomed Pau Point, the channel of the river changes over to the southern bank, and from this position on to the Custom House at Balasor, or a distance of three cables, continues near the Balasor or right bank of the river. Depths here will be found to vary between 10 and 22 feet at low-water spring tides.

SUPPLIES—Of fresh provisions for shipping may be obtained by special arrangement at Balasor, but in the absence of fixed demand there is no recognized source of supply.

FRESH WATER—The river water off Balasor at half ebb is fit for the purpose of drinking, being apparently sweet and clear.

BALASOR PORT—Is about three quarters of a mile in length and consists of that portion of the Burabalang River which fronts the town of Balasor. With the Custom-house bearing S.W. off Balasor 10 feet at low water may be relied on, but the river here is only half a cable wide and a vessel must moor head and stern. There are several awkward bars already described, of which that nearest Balasor, the Gymkhana, has only a foot over it at low-water spring tides.

TIDES—It is high water at full, and change off Balasor Custom-house at about XI hours. Springs rise 10 and Neaps 6 feet 6 inches. The stream of the ebb tide is felt for from 8 to 9 hours, and runs as much as 4 knots an hour; that of the flood is, however, feeble, averaging about half a knot an hour.

BALASOR—The chief town and head-quarters of the Balasor district lies about 7 miles from the sea coast in a straight line and 16 miles by river. Established in 1612, Balasor was the site of one of the earliest English settlements in Eastern India.* The original factory at Pippli (1634) was afterwards transferred to Balasor owing to the silting up of the Subarnarekha River, on which Pippli was situated. Balasor began to decline in importance as its younger rival on the Hugli gradually grew from a cluster of mud huts into the Calcutta of India.

In 1708 the river was found blocked by a dangerous bar, and the town at that time was only four miles from the sea coast; it is now seven miles.

The French, Dutch, and Danes also had settlements at Balasor. Of these, the French settlement, consisting of 100 acres of land on the outskirts of the town, known locally as Farásh-dáugá, remains, yielding a revenue of about £5 a year. The Dutch settlement lasted till 1824, and the Danish was ceded to the English in 1846.

The river has long since writhed itself away from the Dutch quarter, extensive rice fields now stretching between their factory site and the river bank.

TIDES—In Balasor roads the ebb tide sets to the south-west, flood to the north-east; at spring tides about 2 knots an hour.

It is high water at full, and change at the entrance of the Burabalang River at about 9.45. Springs rise 12 to 13; neaps 8 feet.

SUPPLIES—For vessels lying in Balasor roads can only be procured by special arrangement, either with the owners of the various cargo boats, or with the masters of the small steam-vessels which ply

* Acquired for his countrymen by Mr. Gabriel Broughton, Surgeon of the ship *Hampwell* who, in 1690, successfully treated one of the ladies of the Bengál Viceroy's zenana (Shakti-stend Account of Bengál, page 260, vol. XVIII).

weekly with Calcutta. The latter generally anchor to await tide near the anchoring buoy, giving opportunity for communication.

TELEGRAPH.—The town of Balasor has telegraphic communication with Calcutta and Cuttack.

PILOTS.—There were no pilots for the Burabalang River in 1883. No steam or other European vessels ventured across the outer bar except the two local trading steamers plying to Calcutta of 6 and 7 feet draught respectively. Shipping are supplied by the cargo boats which, as a rule, succeed in making their way down from Balasor on the ebb, and after awaiting a tide return on the ensuing flood.

CYCLONES.—Balasor roadstead, from the position occupied in the north-west part of the Bay of Bengal, is exposed to the full brunt of the cyclones which, generated in the bay, and following a north-westerly direction, burst upon this part of the coast with great fury.

The severest disaster of this nature is recorded for the 31st October 1831. On this occasion the storm-wave, 7 to 15 feet in height, breached the trunk road to Calcutta at a point 9 miles from the coast as the crow flies. It was estimated that 26,000 persons lost their lives on this occasion. Cyclones also occurred on the 7th October 1832, 13th October 1848, 22nd October 1851, 1st July 1872, and 15th October 1874. Native craft approach the coast as near as high water will permit. Should a storm come on, it is said that they have little to fear. It is a fact notorious on the coast of Balasor road that, should doubt arise as to the possibility of weathering a storm, the best plan is to run a ship straight into the western part of the Balasor roads near Churaman, some 20 miles to the southward of the Burabalang River entrance, where the liquid mass of mud held in solution by the sea affords the best possible non-conductor to the violence of the winds and waves.

BAY OF BENGAL—ORISSA COAST.

Dhamra and Baitarani Rivers with the port of Chandbali.

The following hydrographic information respecting the above rivers and port has been received from Commander L. S. Dawson, R.N., in charge of the Marine Survey of India, 1883.

All bearings are Magnetic.—Variation in 1883, 2° 30' E.

THE DHAMRA or Dhumrah River, which empties itself into the western part of the Bay of Bengal, is the first and most important of the navigable rivers of Orissa, and forms the northern exit of the united streams of the Brahmani, Kharsua, and Baitarani rivers. It lies within the jurisdiction of the Balasor district. The inner bar of the river, which may be said to be the connecting link between the island of Kulibarj on the south and Kanika flat, part of which is always dry on the north, is constantly changing both in depth and position.

The outer bar, however, to the north of Shortt Island has across it two distinct channels, and maintains its position and depth of water.

In 1883 it appeared possible for a vessel of from 21 to 22 feet to navigate as far as the village of Dhamra, some miles above the outer bar, and for a vessel drawing 17 feet to proceed as high as Chandbali, which is the chief port of the neighbourhood, and situated on the north or left bank of the Baitarani River. Ships which can get within the outer bar find protection from the monsoons, but notwithstanding its excellence in this respect, owing to its distance from Cuttack or any large town, it has been less resorted to than False Point by European craft.

At one time it was contemplated to select the Dhamra as the channel by which the whole canal system of Orissa should enter the sea, but after investigation the preference was given to False Point harbour as the basis of operations on the seaboard.

The Dhamra River also divides the province of Bhadrakh in Orissa from that of Jajpur in Cuttack. At a distance of about nine miles from its mouth, the Dhamra River branches into two considerable streams, that to the north, on the banks of which are situated the towns of Chandbali and higher up of Jajpur, is called the Baitarani River, and follows, on the whole, a westerly direction; that to the south is termed the Brahmani River. It takes a south-westerly direction, and is a means of communication with Cuttack. At about six miles above the Baitarani junction, the Brahmani River connects with the Mypurra,

and about three miles higher receives a considerable feeder in the Kharsua River, which again connects with the Baitarani above or westward of Jaipur.

APPROACHES.—In making for the mouth of the Dhamra River from the southward, caution is necessary to avoid the dangerous Palmyras shoals, which extend to a distance of $11\frac{1}{2}$ miles from this part of the coast, and are steep on their eastern face. If fine weather prevails, the discoloured water will be found to generally indicate the outside or eastern edge of the bank. Besides the Palmyras buoy moored in 11 fathoms, a somewhat ill-defined beacon may be noticed on Shortt Island; but the lead should be kept carefully going, and unless certain of position, no stranger should stand into less than ten fathoms. It is recommended that a vessel should either anchor or stand off the land, if overtaken by night when bound for the Dhamra, if Shortt Island beacon or either Palmyras or Kanaka buoys are not recognisable.

SHORTT ISLAND Is little more than an extensive sand bank shaped like a kite, the tail to the westward, and will be the nearest land sighted when entering the Dhamra River; $2\frac{1}{2}$ miles in length by $1\frac{1}{2}$ in its broadest part. It trends away to the westward in a succession of horn-like projections of sand, which cover in parts and are cut off from the island at high-water. Creepers and coarse grass cover the hillocks on the south side of Shortt Island, the highest of which is $1\frac{1}{2}$ feet above high-water spring tides.

WATER.—No fresh water can be obtained on Shortt Island; three wells have been sunk, the water in each case proving brackish. Young plantations of cocoanut and other trees have been planted, but with what success has not yet been ascertained.

BEACON.—On the western part of Shortt Island, at about $8\frac{1}{2}$ cables from the extreme point, is a beacon of bamboos surmounted by a black basket, the whole secured to an upright post formed of a wrecked ship's timber. The basket is 50 feet above high water, and can be discerned in fine weather from a vessel's deck at a distance of about 5 miles.

It is contemplated to build a light-house on the highest part of Shortt Island.

PALMYRAS POINT.—The south-east entrance point of the Dhamra River, bearing S. 82° W., distant $5\frac{1}{2}$ miles from Shortt Island beacon, is low, covered with dark jungle, and difficult to distinguish. The palm tree, which formerly grew upon it, and formed a useful mark from seaward, has recently fallen from decay.

The coast southward from Palmyra's point trends to the southward, and presents the same low jungle grown aspect: a considerable mud bank fringes the coast, which dries at low water as far seaward as a distance of two miles.

KALIBHANJ ISLAND.—Trending east and west, is $5\frac{1}{2}$ miles long by about $\frac{1}{2}$ in breadth, and divides the Dhamra River into two channels at about 7 miles from the bar entrances. The northern channel is the widest, and carries the deepest water. The woods of Kalibhanj Island, which is not inhabited, as well as the jungle of the country bordering both banks of the Dhamra River, abound with wild animals. Crocodiles are numerous, and will be noticed basking in the sun at low water on almost every sand or mud bank.

DHAMRA VILLAGE.—On the north or left bank of the Dhamra River, 10 miles above Shortt Island, consists of a few straggling houses. A Custom house is situated here, and a tide-pole indicates to those acquainted with the locality the depth of water likely to be met with on the Chandipal bar.

MATAI RIVER.—Which joins the Dhamra River at about a mile westward of Dhamra village, is about one cable wide and navigable at low water for craft of 8 feet draught.

The Matai River brings down the drainage of the country between the Kansbans and the Saladi, and after a tortuous course over a muddy bed, and between densely wooded banks, enters the Dhamra River near its mouth.

A canal unites the Matai with the Gammai; but an embankment has been built right across its mouth, and it has ceased to be used for traffic.

In the coast canal in course of construction to connect Outtaok with Calcutta, the Matai River is utilised as one of the natural connecting links, the junction occurring about 14 miles above the position at which the Dhamra and Matai rivers connect.

Native vessels plying to ports in the Madras Presidency resort chiefly to the Matai River for their rice cargoes.

NORTH CHANNEL INTO THE DHAMRA RIVER.—There are two channels into the Dhamra; of these, the northern channel, though carrying least water, is generally used, being most contiguous to Calcutta, to which port the steam-vessels visiting the river generally ply.

KANAKA BUOY—Is a black wooden beacon buoy with the letter K painted white on it. It is surmounted by two circular discs placed vertically on a staff, which marks the north-east limit of the north channel, and is moored in a depth of 23 feet at low water, and bears from the Shortt Island beacon N. 12° E., distant 2½ miles. Vessels should keep it on the starboard hand or to the northward of them when entering the Dhamra River, and the reverse when leaving. Latitude 20° 49' 28" N., longitude 87° 04' 10" E.

BUOY F. Is conical, of iron, coloured red, surmounted by spire and basket of same colour. It is moored in a depth of 11 feet at low water, and bears from Shortt Island beacon N. 13° W., distant 1 mile 4½ cables, and from Kanaka buoy S. 39° W., distant 1 mile 4 cables. It marks the western limit of the bar, which obstructs the north channel.

BUOY E.—Is black, of iron, surmounted by spire and basket of same colour. It is moored in 10 feet at low water, and bears from buoy F. S. 58° W., distant 8½ cables. About two cables south-east of it, 12 and 13 feet of water will be found.

BUOY D.—Is a red, iron, conical buoy, moored in 16 feet at low water. To the northward, and between it and buoy E. the north and south channels converge, and here depths will be found at low water, of 14 and 15 feet, over a bottom of mud. From it Shortt Island beacon bears S. 86° W., distant 1 mile, and E buoy south, distant 1 mile. It is about two cables distant from the westernmost point of Shortt Island, the channel between, through which the tide sets with considerable strength, being deep and free from danger.

BUOY C.—Is a conical buoy, coloured black, surmounted by a staff, and is situated on the north side of the channel about midway between Shortt Island and Kanaka bank. It bears from Shortt Island beacon W. 2° N., distant 2 miles, and has the letter C marked on it in white.

BUOY B.—Is a conical red buoy, surmounted by a staff with a cage of same colour. It marks the south side of the channel southward of Kanaka bank, and bears from C buoy S. 76° W., distant 2 miles.

BUOY A.—Is a conical black buoy, surmounted by a staff with cage of same colour. It marks the north side of the channel southward of Kanaka bank, and bears from the highest part of the Kanaka bank S. 53° W., distant ½ mile.

INNER BAR BUOYS—Are conical can buoys: that on the south side of the channel coloured red, that on the north side coloured black. They bear from one another N. 21° W. and S. 21° E., distant 1½ cables, and from Palmyras Point the south or red buoy N. 17° E., distant 5½ cables; the north or black buoy N. 9° E., distant 6¾ cables.

Depths of 12 to 14 feet at low water will be found between the bar buoys just described.

From the inner bar buoys the channel, to abreast Dhamra village, continues clear of danger and without buoys. Vessels drawing 20 feet may reach as high as, and anchor off Dhamra.

The buoyage of the south channel into the Dhamra River will be next described.

PALMYRAS BUOY, which acts as a guide for vessels entering the Dhamra from the southward, as well as a mark for clearing the Palmyras shoals, if bound to Balasor or the entrance to the Hugli, is a large red beacon buoy with a broad white horizontal stripe, surmounted by a vertical staff and circular disc coloured red. It is moored in 11 fathoms at low water, and bears from Shortt Island beacon N. 73° E., distant 7 miles, and from Kanaka buoy S. 86° E., distant 6 miles 2 cables, or in latitude 20° 48' 47" N., longitude 87° 10' 55" E.

The south-eastern finger of the Palmyras shoals, having as little as 4 fathoms at low water, extends about a mile south-eastward of the position of the Palmyras buoy (1883).

The course from Palmyras buoy to buoy H, which marks the south side of the outer bar of the south channel into the Dhamra River, is S. 78° W. and the distance 6 miles.

From a ship's deck, when in the neighbourhood of Palmyras buoy, Shortt Island beacon can generally be recognised, and the

position, by cross bearings, of these objects can be obtained; and the direction in which the tide is setting noted, before the bar of the south channel is arrived at.

BUOY H.—Marking the south side of entrance over the outer bar of the south channel into the Dhamra River, is a conical buoy surmounted by a vertical staff, the whole coloured red. It bears from Shortt Island beacon N. 46° E, distant 1 mile $1\frac{1}{2}$ cables. The letter H is painted on it in white.

BUOY G.—Is a black wooden conical buoy, surmounted by a black cross. The letter G in white, is painted on this buoy, which bears N. 11° W., distant $8\frac{1}{2}$ cables from the beacon on Shortt Island. The depths found near G buoy at low water are from 14 to 16 feet.

About a quarter of a mile westward of G buoy the north and south channels into the Dhamra River meet, and the channel just here has a breadth of $3\frac{1}{2}$ cables, and in it depths of from 13 to 20 feet over a muddy bottom will be found.

DIRECTIONS, NORTH CHANNEL.—Pass close southward of the Kanaka buoy, situated in latitude $20^{\circ} 49' 28''$ N., longitude $87^{\circ} 04' 40''$ E., keeping a S. $58\frac{1}{2}^{\circ}$ W., course for one mile, then haul to the southward steering S. 23° W., 2 miles $3\frac{1}{2}$ cables, passing F buoy, which is red and conical, and surmounted by a cage on its western side, at a distance of $1\frac{1}{2}$ cables, and eastern buoy, which is black, at a distance of $3\frac{1}{2}$ cables, until Shortt Island beacon bears S. 70° E., when alter course to S. 59° W., which will bring G buoy, which is coloured black, and is surmounted by a black cross right astern. Continue on this course for a distance of a mile and 2 cables, when D buoy, which is red and conical, will be seen open to the north of Shortt Island beacon, bearing N. 78° E., then steer for B buoy, which is red, and surmounted by a red cage, on a S. 86° W. course. Pass close northward of B buoy, and then strike across the channel on a N. 63° W. course for A buoy, which is black, with black cage. Pass close south of A buoy, and thence for the northern buoy of the inner bar, which is a black can buoy, on a course of N. 88° W., which will lead over the inner bar in a depth of 13 feet at low water, and close south of the black can buoy.

Having passed the inner bar, edge away on a S. 72° W. course for the east point of Kalibhanj Island for about 9 cables, or until Chandipal tree on the north bank of the river, which has a triangular cage-beacon protruding from the south side of its branches, bears N. 31° W., when alter course for the perch on the north side of Kalibhanj Island, steering N. 86° W. This perch, which is a basket on bamboos, forms a distinct mark, and may be passed at the distance of a cable. Continue after passing Kalibhanj perch on the south side of the channel, keeping the north shore of Kalibhanj Island about $1\frac{1}{2}$ cables distant, until Dhamra village bears N. 42° W., when it should be steered for, the deep water now changing to the north side of the channel.

ANCHORAGE.—May be found with Dhamra village, bearing north, in from 20 to 24 feet at low water, at a distance of $1\frac{1}{2}$ cables from the north bank, on which the village is situated.

This is the anchorage for large vessels.

CAUTION.—It is not advisable for any vessel drawing more than 14 feet to navigate beyond Dhamra, but at high water, with the aid of a pilot, draughts of 17 and 18 feet may continue as high as Chandbali or the Baitarani River.

It being desired to continue to Chandbali or Mahurigaon, higher up the Dhamra, bold water will be met with at a cable's distance from the north bank of the river from abreast Dhamra village and for about $1\frac{1}{2}$ miles westward of the mouth of the Matai River, when the neighbourhood of the Celerity spit, which is marked on its south side by a black can buoy, which joins the bank extending from the western extremity of Kalibhanj Island, will be reached, and the perch on Round Point, on the south side of the river, is sighted.

If the Celerity bar be crossed at a distance of 4 cables from the western extreme of Kalibhanj Island, the west depth found at low water will be 10 feet. The southern or right bank of the river should then be steered along at a distance of $1\frac{1}{2}$ cables, the black can Celerity buoy being passed on its south side at the distance of a cable, and the basket perch on Round Point kept on the port bow. Continue thus until MacMaster's mark, which is a tall white flagstaff surmounted by a basket, and the three red buoys, which denote the turning into the Baitarani River.

Keep these three red buoys successively on the port hand at half a cable's distance, rounding gradually for the inner or western part of north point, which is steep too.

BAITARANI RIVER.—Identified by the Brahmans as the Styx of Hindu mythology, but possibly a corruption of Avitarani, meaning "difficult to cross," enters the Balasore district at the village of Batipur, and flows for about 45 miles in a south-westerly direction till it joins the Dhamra five miles from its mouth. The Baitarani forms the boundary between Balasore and Cuttack. It is nowhere fordable during the rains, but can be crossed everywhere in the dry weather above Olok, about 15 miles from its mouth. At Olok it ceases to be navigable, and the tide does not run above this place. It receives two tributaries on its Balasore side, the Salandi and the Matai: the former, properly called Salnadi, takes its name from the *sal* forests which it traverses. It rises on the southern slope of the Meghasani mountain, literally the "seat of clouds," in Morbhanj, and throughout its upper course, is a black water river, with high banks and a bottom of muddy sand.

In January it scarcely anywhere exceeds three feet in depth. Luxuriant vegetation clothes its banks, which in certain places almost become cliffs, and for miles the river runs through groves of mangoes, palms, and bamboos. It forms no islands or lakes, and has no tide; but it is navigable for country boats as high as six miles from its junction with the Baitarani. Its lower course bifurcates into a network of streams, which are interlaced with those of the Matai.

The country in the neighbourhood of the banks of the Baitarani becomes more open, and is largely cultivated with rice, the jungle which marks the banks of the Dhamra being lost sight of.

Between the entrance of the Baitarani and Chandbali there are 15 villages, but none of these are of an important character, nor present any feature for the guidance of the navigator, the first conspicuous house being the travellers' bungalow at the east end of Chandbali.

The entrance of the Baitarani is split into two channels by Lucheenarain Island, which is about $\frac{1}{2}$ mile in length by $\frac{1}{4}$ of a mile in breadth. Of these the northern is the navigable channel carrying depths of 20 feet at low water mid-channel. The southern channel is shoal and only available for boats.

In the south channel from abreast north point a mid-channel course should be steered until abreast the second creek, which flows into the Baitarani from the northern or left bank.

A WHITE WOODEN CROSS, conspicuous and easily discovered, is situated near the mouth of the second creek just alluded to. Allowing for the bend of the river, its distance is about $1\frac{1}{2}$ miles from north point, and it is erected as a crossing mark for the Jhuta bar, which is the next shoal part of the Baitarani River.

CROSSING MARKS.—On the eastern or right bank, consisting of a cage beacon on a pole amongst the trees, for the southern mark, and a black barrel fixed upon a pole a little more than a cable to the northward of the cage beacon, are used for crossing the Jhuta bar.

JHUTA BAR.—Is an underwater continuation of the west point of Lucheenarain Island (which divides the entrance of the Baitarani River into two channels) with Pilot's Island situated in the Baitarani about half a mile to the southward. A depth at low water of from 8 to 9 feet may be found in the Jhuta bar.

TO CROSS.—The basket or cage amongst the trees kept just open westward of the barrel upon pole, previously described, on Point Douglas, and kept on a bearing of S. 18° E. will lead across the Jhuta bar in about nine feet at low water, with the white wooden cross in the north bank seen right astern.

PILOT ISLAND.—Southward of the Jhuta bar is low and overgrown with grass and creepers extending $11\frac{1}{2}$ cables in a north by east and south by west direction. Considerable sand flats extend from its north and south points, and between it and the western, or left bank of the Baitarani River, is a narrow boat-passageway known as "Chapman's gut." The navigable channel which carries from 17 to 23 feet of water, lies between Pilot Island and the eastern bank of the Baitarani, the best track being nearer to the eastern bank. This part of the river is known as Pilot's Reach, and a black can buoy marks the south-west extreme of the spit extending to the south-westward from Pilot Island.

From the black can buoy just mentioned, which is situated near the western end of Pilot Reach, the river turns at right angles round a

tongue-like projection known as Palmer Point. On the western side of this part of the river is a sandy island terminating at its southern extremity in mud, termed Sickle Island. Between Sickle Island and the western or right bank of the river is a narrow boat-passage, available at quarter flood.

A RED CAN BUOY marks the western limit of Sickle Island. The navigable channel, which is about a cable in breadth and carries 25 to 27 feet at low water, lies close to the eastern or Palmer Point side of the river, and curving gradually to the westward changes over to the opposite or southern side at Sickle Point, which forms the eastern boundary of the next known as Long Reach.

LONG REACH—Runs in a westerly direction for about two miles and around Borarriah Point, which is low and swampy. The upper or northern part of Long Reach terminates in Hurripur bar, having on it eight to nine feet at low water.

The channel in Long Reach lies within half a cable of Sickle Point, and along the southern bend at about the same distance from that shore. As Long Reach trends to the northward, the channel shallows from 26 to 17 and 14 feet, gradually crossing to the eastern bank over the Hurripur bar, which is $3\frac{1}{2}$ cables wide, and has on it from eight to 10 feet of water.

HURRIPUR REACH—Has a northerly trend, and carries from 14 feet on the eastern side of its channel just northward of Hurripur bar to 20 and 25 feet higher up or farther north. The deepest water in this reach lies about mid-stream. The latter part of the reach trends gradually to the westward round Love Point, towards which the deepest water lies.

LOVE POINT BAR—Extends throughout almost the whole space between Love Point and Chandbali, and in the shoalest part of its best water carries from 7 to 8 feet at low water. A course of $W \frac{1}{4} N.$ for 11 cables from Love Point leads in the deepest water at about a quarter of a cable from the southern or right bank up Love Point Reach, until travellers' bungalow bears north distant about a cable.

The three piers of Chandbali may now be distinguished, and anchorage picked up as convenient, in from 22 to 30 feet off the town.

CHANDBALI—Situated on the north or left bank of the Baitarani, about 30 miles by river track from the Kanaka buoy, on the outer bar of the Dhamra, is nevertheless considered within the limits of the port of Dhamra. The station is situated on a narrow sand ridge, which trends north and south, or parallel to the direction of the sea coast, terminating abruptly on the northern bank of the Baitarani River. Of late years it is said to have risen in importance, and to have an improving trade. There is a police station, travellers' bungalow, and Customs office with Warehouse and three landing piers.

There is weekly communication with Calcutta by steamer and with Cuttack twice a week. Native sailing vessels do not, however, as a rule, frequent Chandbali, preferring the Matai River, a tributary of the Dhamra, for picking up their rice cargoes, to the Baitarani, the Matai affording greater advantages in its long course through a rice-producing tract.

The travellers' bungalow, a conspicuous white house with verandah, is the first house seen in Chandbali when ascending the river; it stands close to the water's edge on the north or left bank of the river clear of any trees.

BUOYS.—There are buoys off Chandbali for the use of the local steam-vessels in hauling out into the stream from their respective piers off Gwire Point, at the western extremity of the reach, in which Chandbali is situated.

PROVISIONS—for Europeans, are scarce, and can only be procured with difficulty at Chandbali.

TRADE—The export consists almost entirely of rice. Large numbers of coolies are brought as passengers from Calcutta by local steam-vessels, for employment in the rice fields at certain seasons of the year. In this respect brisk competition goes on. A portion of the passengers are pilgrims on their way to and from Jagannath. These pilgrims are generally up-country people of the middle class, who can afford to pay their fare by rail to Calcutta, and by steamer to Orissa.

GWIRE POINT.—A sharp tongue on the south side of the river, opposite to, and about half a mile above or westward of, Chandbali terminates Love Reach. Here the river turns sharply to the south-east, and continues navigable for the same draught of water that has reached Chandbali for two miles.

A RED BUOY.—marks the termination of the shoal water off Gwire Point, and in ascending the river, should be kept on the port hand.

MAHURIGAON.—Situated 2 miles above Chandbali, but on the opposite side of the river, was formerly of some importance as a halting station for a line of steam-vessels owned by a native firm at Calcutta, but of late years it has fallen off in importance, and the only form of communication in 1883 was by native boats.

BAY OF BENGAL—EAST COAST

MEGHNA RIVER.

Bearings Magnetic Var. 3.

REPORT of H. B. Simpson, Esq., Assistant Superintendent 3rd grade, Marine Survey of India, on an examination or running survey made of part of the Rivers Meghna and Shabbazpur in February-March 1883, when detached from the T. G. surveying vessel *Investigator* under Commander L. S. Dawson, R.N., in charge of the Marine Survey of India.

RIVER MEGHNA.—*From Sandwip Channel to Nārayanganj.*—In carrying out this examination of the Meghna, the G. T. Hill station of Sitākund, northward of Chittagong, was taken as the starting point, bearings being obtained as long as Sitākund was visible, and when that was lost sight of, stations, six in number, fixed astronomically, were used, the longitudes being determined by a chronometer, the error of which was ascertained both before leaving and after returning to Chittagong, and points were cut in by a round of angles taken at the mast-head of the cutter.

The soundings were obtained from a pilot cutter, on the upward route; lines also being run across at the first three stations in the Sandwip channel by a steam cutter, and zig-zag lines were run on the downward route by the steam cutter from Nārayanganj as far as Noakhali creek. A whale boat was also used in some of the narrower channels.

The soundings are reduced below the lowest depths obtained at low water at the different stations, the depth being taken every half hour alongside the pilot cutter, the moon's age being taken into account, and are only approximate.

The strength of the tide was taken by the hand log (at the station off the island of Bidoo, at springs, five days after change of the moon; the tide ran five knots and was considerably stronger in the middle of the channel).

The soundings are approximately fixed by bearings of points, mast-head angles of the pilot cutter, and distances by patent log.

Sandwip Channel above Fenny River.—Depth of water on bar off island of Bidoo seemed about four feet, with a rise of sixteen to eighteen feet at springs, with very strong tides, 5 to 6 knots, and the native craft only work on the neap-tides during the rains, as anchors will not hold in the ebb at springs.

The channel used is about a mile and a quarter off the north-east side of the island of Bidoo leading across to the village of Chiringa, close along the south side of the new *char* formed on the north side of the river in a W. N. W. direction. There is another channel close to the north bank from Fenny River to Chiringa to the north of the new *char*.

The second bar is between the island of Bidoo and the village of Chiringa, with about seven feet and a rise of fourteen.

The banks on both sides are much cut away by the stream, the north above Chiringa and the south at Bidoo and Siddhi, the noise of the mud falling into the water being heard at short intervals throughout the night.

The bank at Chiringa is steep, with deep water close in, and the native vessels lie at anchor here in six fathoms out of the tide.

From Chiringa to Noakhali Point the channel lies close to the north bank in a S.W. by W. direction, with a breadth of four cables and deep water. The bank is grass-land, without any trees, from a little west of Chiringa, a solitary tree standing on the southernmost part of the bank near Noakhali Point, but it will most likely soon fall into the river from the cutting away of the bank.

At Noakhali Point is another bar with twelve feet and a rise of about ten feet. The river here turns to the north-west.

Nodkhali Point to Narnak Chur.—The channel lies close to the east bank with good depth, about five cables wide, as far as two palm trees standing close on the bank, bearing from the north point of Narnak char about N 72° E., towards which it crosses with a depth of about sixteen feet and a rise of about nine feet springs. The stream is not so strong here as in the Sandwip channel, and at ebb tide neaps the water was perfectly fresh alongside.

Two new *char* have formed in the lower part of this reach.

The east bank is grass-land close to the river, some distance in, clumps of trees grow, and a mosque is visible at intervals, the position being about 22° 46' N 918 00' E two miles from the bank.

The west side of the river is scarcely visible, from the east being the Island of Hatiá.

• *Above Narnak Char* (pronounced Lallan chur by the natives) the channel has twenty feet for nine miles. Direction about N. by W. & W., and lies near the middle of the river towards the west bank;

The river trends to the north-west from the mouth of the Ilsa to the Nowa Bhangree, then north to the mouth of the Pudda.

abreast of and beyond the Ilsa River, as far as the mouth of the Pudda, there is good water, the channel lying close to the west bank. Beyond Aboodu Point on the eastern side a sand extends from the bank to nearly the middle of the river.

The west bank is covered with thick jungle from Shahbazpur River to within a mile of the mouth of the Pudda.

Off the Pudda, the mouth of which is ill-defined, about eighteen feet is found. From this to the first *char* above Chandpur there

From the Pudda to Chandpur N. E. by E., then N. and W.N.W.

is deep water; running out from these *chars* are shoals with channels in between.* Above the last *char* the channel is wide and deep, direction about north, as far as the mouth of the river leading to Daudkandi, where it again shoals to about twenty-two feet.

After passing the last *char* above Chandpur, Rajbarree temple comes in sight on the west bank; it is situated four miles from the river, and is a conspicuous mark.

The west bank is almost without jungle from the mouth of the Pudda, and numerous villages are seen. The east bank is covered with jungle, more or less, from a short distance below Chandpur.

From the mouth of the Daudkandi river the eastern channel is deep as far as the mouth of the Luckia River a branch of the Dullesury (on which Naráyángánj is situated), where there is a bar with about 18 feet and a rise of 2 feet.

The western of the two channels formed by a *char* about two miles in extent, has a depth of about seventeen feet at the upper bar which is the shoalest. Above this the Dullesury River by which Naráyángánj is reached leaves the Meghna.

Off the town of Naráyángánj, the river is deep on the west side (next the town) with a breadth of one and a half cables.

SHAHBAZPUR.—River leaves the Meghna immediately above Narnak *char*, and flows between the Falcon *char*, Hatiá, and Dakhin Shahbazpur. A bar is found close to the entrance at the north side of Falcon *char*, with about fourteen feet and a rise of nine feet. Beyond this is deep water as far as Shahbazpur Point, below which another bar is found with fourteen feet, and a rise of twelve to fourteen feet might be counted on, but no observations of the rise and fall were got. From this bar to seaward a channel is shown on the Admiralty Chart entering the Bay of Bengal to the westward of the D'Apré Shoal, and this seems a better approach to the Meghna than by the Sandwip Channel, but is never used.

The passage through the Hatiá *char*, said to be used by the native brigs, is never used and does not seem to be known by them, and is only used by row boats carrying passengers from the surrounding districts to Chittagong. The banks in it seem very much cut away by the stream, and it must have a considerable rise and fall to a good depth at high water.

The land seems to have altered considerably where this river leaves the Meghna since 1841, the date of Captain Lloyd's chart, but is much the same as the revenue survey map of 1865 gives it.

The approaches to the Meghna by the western or Shahbazpur river would be out of sight of land for the first 20 or 25 miles, except having the D'Apré Shoal (dry at low water) about five miles from its mouth, where a beacon could be placed, and would require to

* This part of the river differs very much from Laycock's chart.

be marked with buoys, but the changes would probably be less frequent than in the Sandwip Channel.

• A survey of the river from Naráyánganj to the sea would probably not repay cost for a considerable period; but a survey of the worst parts might show that vessels of large draught could pass up and down, as native craft drawing ten to twelve feet pass up and down continually by the Sandwip Channel with very small means of navigating and no special marks for channels, working almost entirely by the tide.

The worst parts of the Meghna are the northern portion of the Sandeep Channel as far as Noakháli Point, the crossing at Naruak char as far as the Ilsa River, off the mouth of the Pudda between the chars above Chandpur and the mouth of the river on which Naráyánganj is situated.

The worst parts of the Shahbazpur River are the bar at the northern end, the one below Shahbazpur Point.

WINDS AND WEATHER.—During the month of February the winds were northerly, light, with clear weather; towards the end of the month the sky became cloudy, and S.E. squalls, with thunder and lightning, continued for some days.

The weather was cool and pleasant during the whole month.

SUPPLIES.—As the inland steamers from Calcutta to Assam pass up the Meghna, supplies of any sort could be easily procured, and daily postal communication is carried on with Calcutta.

TOWN OF NARAYANGANJ.—On the west bank of the Luckia River, is of considerable size, with several mills and jute presses, the preparation and transport of that article apparently being the chief trade.

A great part of the jute is taken to Chittagong for shipment by native brigs of which there are a large number loading and moving up and down the river, the inland steamers and flats carrying as much of it as is shipped at Calcutta.

Hydrographic Notice.

BAY OF BENGAL

THE following information relating to the coast and port of Chittagong in the north-east portion of the Bay of Bengal has been received from Commander L. S. Dawson, R.N., in charge of the Marine Survey of India:—

COAST OF CHITTAGONG.

[All bearings are magnetic.—Variation in 1883 20° 50' easterly.]

APPROACHING CHITTAGONG.—Whatever the state of the weather or time of the year, but more especially during the south-west monsoon, or from April to September, the greatest care is necessary in making the mouth of the Karnaphuli, better known as the Chittagong river.

It should be remembered that the tides within 15 miles of this part of the Bay of Bengal set up and down, or in line with the trend of the land, and at springs run five and even six knots an hour. Vessels have been known, in hazy weather, to have been swept past Chittagong by the flood tide, and set upon the sands westward of Sandwip Island, without sighting either Kutabdia Island light by night or the land by day.

The tides at about from 20 to 50 miles from the coast are reported, however, to show a circular tendency, as at the Sandheads of the Hughli River, for the flood tide commences at east-south-east round by south, ending at west-south-west; and the ebb, beginning at west-north-west, works round by north, and ends at east-north-east.

During the south-west monsoon the strong southerly current met with in the Bay of Bengal may be expected, as the coast is closed with, to increase in strength, owing to the heavy outpour from the Meghna and other large rivers, which enter the sea northward of the Karnaphuli or Chittagong River.

Endeavour should be made, in nearing the land, if proceeding from the southward, to obtain soundings in about latitude 21° 10' north, longitude 91° 10' east, where the depth at low water will be found to be 10 fathoms, and the bottom soft mud. Even if the weather be favourable for observation, and the Commander of a vessel confident as to his astronomical position, strict attention to the depth of water as well as frequent attention to the course

and distance made over the ground, ascertained by making use of the ground log,* will yet be advisable.

The course from the position just given to the entrance of Karnaphuli or Chittagong river is north-north-east $\frac{1}{2}$ east, and the distance 70 miles. If possible the land should be made in the day time, a night land-fall being rendered unadvisable, not only on account of the off-lying dangers consisting of the Dolphin shoal and north and south patches, the approach to which is not indicated by the soundings, but also on account of the light exhibited at Kutabdia Island being sometimes shrouded by fog and rising mist.

If in doubt as to the position, and the ground log denotes a strong flood tide, it will be well to anchor to avoid being set to the northward on to the tails of the shoals extending from the south end of the Sandwip Island and the entrance to the Meghna River, which are said to extend further south than the chart indicates.†

KUTABDIA ISLAND, or Kutubdeeah, is the westernmost land fallen in with when approaching Chittagong.

It is 12 miles long north and south, by from 4 to 2 miles in width, and is pear-shaped, and although low and level, covered with trees and distinguishable at the distance of seven or eight miles.

Kutabdia, until recently, has been protected by artificial embankments from the encroachment of the sea, but owing to reports that the island is sinking and difficulties in maintaining the necessary repairs to these embankments, any further work in connection therewith has been discontinued, and consequently the island is now almost devoid of inhabitants.

LIGHT.—Near the western extreme of Kutabdia Island, or in latitude $21^{\circ} 52' 30''$ north, longitude $91^{\circ} 50'$ east, is a masonry tower 111 feet in height, from which is exhibited a fixed white‡ light at an elevation of 126 feet above high water, which should be visible from a vessel's deck in clear weather at a distance of 18 miles. The light tower has its lower storey coloured grey, and the upper part coloured alternately in red and white horizontal bands.

From the 15th of May to the 15th of September (both days included) a blue light is burnt from the top of Kutabdia Light-house hourly between 7 P.M. and 5 A.M. inclusive. The glare of this blue light should be detected at a distance of 20 miles.

SOUTH PATCHES, 13 miles from the nearest land and 15 miles south-west of the south point of Kutabdia Island, consist of three distinct heads of hard sand extending in a north and south direction, the northern and middle of these heads, having respectively $2\frac{1}{2}$ fathoms and 3 fathoms over them, are connected with one another, and are about $1\frac{1}{2}$ miles apart. The third or southernmost head has over it $4\frac{1}{2}$ fathoms at low water, and is $2\frac{1}{2}$ miles distant from the middle head. In fine weather rollers may generally be seen near the south patches, and in a fresh breeze the shoaler parts are reported to have breakers upon them.

Around the south patches and close to will be found depths of 9 and 10 fathoms, muddy bottom, and it is reported that with southerly winds a heavy breaking sea churns up around these formidable dangers.

A WHISTLING BUOY, conical, of iron, and painted red, is moored in 10 fathoms at low water, a quarter of a mile due west of the northern head or shoalest part of the south patches, or in about latitude $21^{\circ} 32'$ north, longitude $91^{\circ} 38' 30''$ east.

This buoy can be seen from a height of 20 feet at a distance of 4 miles, and with a moderate sea the sound of the whistle has been reported audible at the same distance.

NORTH PATCHES cover 12 miles in a north and south direction, extending southward in a broken tongue for that distance from a position about 3 miles westward of the south point of Kutabdia Island. The depth of water in the north patches varies from $\frac{1}{2}$ to $2\frac{1}{2}$ fathoms, and the bottom is of hard sand.

A channel about three-quarters of a mile wide, having from 9 to 16 fathoms of water runs up inside the north patches, or between these dangers and the sands extending off the south end of Kutabdia and westward from Maskhal Island. The tide rushes with great velocity through this channel, and without local knowledge it is better not to attempt it.

DOLPHIN SHOAL is one of the terminations of the shoal tongue running southward of Sandwip (Sundeeep) Island. It is about 2 miles long north and south by half a mile in width, and has over it a depth of three-quarters of a fathom at low water. Between Dolphin shoal and the west side of Kutabdia Island, the channel is 3 miles wide, and carries depths of from 6 to 7 fathoms of water.

* Similar to the hand log, except that a lead is used, instead of a log-ship, which former reaches the bottom. By noting the direction of the line as well as the knots run out, the actual speed and course of the ship over the ground, and not through the water only, is thereby ascertained.

† In 1882 the ship *Mabeth*, through an error in reckoning, was set on to D'Apies Shoal, and became a total wreck.

‡ The light apparatus used in Kutabdia light-house is an 8-reflector lantern. It is probably the oldest of its sort in use on the coast of India.

A **BLACK SPIRAL BUOY**, surmounted by a cage, is moored in 5 fathoms at low water off the west side of the Dolphin Shoal. From it Kutabdia Light-house bears east, distant 4 miles.

SANGU (SUNGOO) RIVER* the entrance of which, though almost filled up with sand banks at low water, appears at high water, when these banks are covered, to be about 3 miles wide, enters the sea 13 miles northward of Kutabdia Island Light-house, the coast between being low and without distinguishing marks.

The Sangu River is navigable for large cargo boats for 13 miles from its mouth throughout the year, and connects higher up with the Karnaphuli, on which Chittagong is situated, by a channel, which is partly of artificial origin.

NORMAN'S POINT.—The north entrance point of the Sangu River, is broad and flat, and fringed with extensive sand flats, and trending gradually to a bearing of north by west and north, forms the eastern bank of entrance to the Karnaphuli River. Norman's Point, about 6 miles northward of the entrance of the Sangu, terminating the sandy sea-face, for from Norman's Point to the northward extensive flats of mud stretch out into the Karnaphuli River. Embankments are constructed on the face of Norman's Point above high-water mark to protect this part from inundation. Numerous small villages here dot the coast at about half a mile distant from the grass-grown embankment alluded to.

A considerable creek, navigable by large boats, enters the Karnaphuli Point on its north bank, and near the mouth is an extensive village, and about half a mile to the eastward a second village, with a large conspicuous tree near its western end.

LIGHTS.—About $1\frac{1}{2}$ mile southward of Norman's Point, supported on white wooden tripods, are two *fixed white* lights elevated respectively 40 feet and 34 feet above high water, and bearing from each other north-west by west $\frac{1}{2}$ west and south-east by east $\frac{1}{2}$ east, 40 yards apart. They should be visible at a distance of 7 miles, but only between the bearings of north-north-west through west to south by east, as seen from sea-ward. These lights can generally be made out before that of Kutabdia Island becomes loss to view.

It is contemplated to replace the lights upon Norman's Point by a masonry light tower of greater elevation, and showing a dioptric light of greater power.

PATUNGA POINT is low and flat and ill-defined, with but few trees. An extensive maidan or grassy plain extends some miles inland from its blunted southern point, and a good-sized flag-staff, situated about the central part of the high-water line, edging the mud flat of the point, affords a good mark. It bears from the highest or easternmost light tripod in Norman's Point north 13° west, and from Joeldia Hill flagstaff south 54° west.

Villages exist near Patunga Point, and herds of cattle are constantly seen grazing in the grassy flats of the vicinity.

The coast from Patunga Point northward preserves a low unbroken aspect, trending north and forming the eastern shore of the Sandwip Channel. Extensive white sand beach borders the coast, and at about 2 $\frac{1}{2}$ miles northward of Patunga flagstaff, Mahesh-khali Creek, which joins the Karnaphuli River below Chittagong, enters the sea.

THE KARNAPHULI RIVER, or Kynsa Khyoung,* as it is called by the hill people, is the most important river in the Chittagong district, or the country comprised in the long strip of coast extending between the Bay of Bengal and the north Arrakan Hill Tracts. It rises in a lofty range of hills to the north-east, and after pursuing a tortuous course through the hill tracts enters the district of Chittagong at the village of Chandraguna.

As far as Kasalang, or a distance of 100 miles from its mouth, the Karnaphuli River is navigable throughout the year for boats of 4 tons burden. About 20 miles above Kasalang navigation is stopped by a succession of low falls and rocky slopes about a mile in length, known as the Barkal rapids. Above Barkal, the stream narrows as it enters the higher ranges, its course being north for some distance until the Demagiri falls, some three days' journey from Barkal are reached, above which the river becomes an insignificant stream, with rocky beds, and only navigable by the smallest canoes.

The chief tributaries are the Kasalang, Chingri, Kaptai, and Bankheong rivers, of which the two first are navigable by boats for about three days' journey above Barkal.

Below the Barkal falls the Karnaphuli flows in a bed composed of mud and sand, and its banks, covered with jungle, rise to a height of 60 feet. As far as Kasalang, or about 100 miles from its mouth, the tide is felt, and except during the rains, when the current is very rapid, its flow is sluggish.

The lower part of the Karnaphuli is better known as the Chittagong River.

* Strangers are reminded that the Karnaphuli River entrance may be distinguished from that of the Sangu by the flagstaff and semaphore on Joeldia Hill, the light tripods near Norman's Point, and the flagstaff on Patunga Point, on the north bank of the Karnaphuli.

* Statistical Account of Bengal, vol. VI, p. 25.

THE BAR of the Karnaphuli or Chittagong River extends completely across the river's mouth, and for 3 miles in a north-east and south-west direction, or from immediately abreast Jooldia Hill and flag-staff inside, the river, to $1\frac{1}{2}$ miles westward of Norman's Point near the entrance. The depths on the bar and in the best channel in April 1883, varied from 9 to 17 feet at low water. The shoalest parts are those at the south-west limit, where from 9 to 10 feet will be found at low-water spring tides, immediately between the two outer buoys which are coloured, the northern one red and the southern black; and at about 2 miles inside the outer edge of the bar, or south-eastward of Patunga flagstaff, where from 10 to 11 feet must be expected at low water.

Observations taken in the *Investigator* tend to show that the outer shelf of the bar, which drops suddenly from 10 feet to 4 and 5 fathoms, is most liable to change, being affected and slightly altered by each spring tide. Nor is the reason far to seek. The rapid tides of the Sandwip Channel, taking a northerly and southerly direction and impinging upon its protruding lip, scour hollows upon the comparatively shallow surface, most marked when aided by a strong south-west wind and sea.* The depth on the bar, however, does not appear of late years to have decreased—a reliable chart by Captain R. Lloyd, R.N., showing, in 1840, a depth of only $7\frac{1}{2}$ feet at certain positions on the outer part. In strong south-west winds a confused and dangerous sea breaks all over the outer part of the bar.

The best time for vessels to cross the bar is at slack water of high tide, and next to this on the first of the ebb. The tides set across the outer part of the bar, the flood to north-north-west, the ebb to south-south-east. At springs the flood tides run very strong, and are apt to sweep vessels to the northward and westward of the entrance to the river.

A draught of 22 to 23 feet by steam-vessels, or vessels towed in moderate weather during the height of spring tides may cross the bar at any season of the year. The best class of vessels, more especially during the south-west monsoon, for the trade of Chittagong, are those between 600 and 700 tons.

Sailing ships are sometimes detained on leaving the river during the south-west monsoon for want of a favourable wind. This may generally be expected at night in the shape of a land breeze from the northward.

BAR BUOYS—In 1883 six large can buoys surmounted by baskets, marked the channel entrance to the Karnaphuli or Chittagong River: those on the western side of the channel coloured red, those on the eastern side coloured black.

From the outer red buoy, Patunga flagstaff bears N. 46° W. Mag distant $1\frac{1}{2}$ mile, and from the outer black buoy, the highest or eastern light-house on Norman's Point bears south 40° east, distant one mile and seven cables.

CAUTION.—The two outer buoys are liable to be washed away as the tide sets fiercely past them, and they are exposed to a chopping sea.

WESTERN ENTRANCE LEADING MARKS—A square pillar coloured white, situated on a hill bearing nearly north, distant $8\frac{1}{2}$ cables from Jooldia flagstaff, brought just eastward of, and nearly touching, a white post 50 feet in height, surmounted by a white triangle on the plain bordering the foot of the hills, on a north 40° east bearing, leads over the outer part of the bar in from 9 to 10 feet at low water and about 180 yards south-east of the outer red bar buoy, making the north limit of the channel, until an overhanging tree (Leading Tree), apparently on the same ridge as, and to the northward of, the pillar, comes in line with a white triangle surmounted by a white disc on a pole, on the river bank on a north 35° east bearing. The vessel will now be about $5\frac{1}{2}$ cables north-eastward from the second red buoy, which will have been passed close to, and the course of north 35° east should be pursued, with the white disc and triangle just alluded to, in line with the central part of the overhanging or Leading Tree. This leads over the deepest water on the inner part of the bar, and into the deep basin off Jooldia village, into which the river on its eastern side deepens out, and where quiet anchorage may be found.*

TIDES.—It is high-water at full and change on the outer part of the bar at the entrance to Karnaphuli River at about 0h. 45m. Springs rise 15 to 16 feet and Neaps 10 to 11 feet.

During the south-west monsoon, April to October, extraordinary spring tides have been known to rise as much as 19 feet above the level, to which the soundings upon the Admiralty Chart are reduced, or above low-water ordinary spring tides of the dry season, January to April.

Off Jooldia flagstaff, or upon the inner part of the bar, the flood tide is half an hour later than at the outer part of the bar.

Near the town of Chittagong high-water occurs about $\frac{1}{4}$ hour later than at Jooldia, and consequently $1\frac{1}{2}$ hours later than at the outer part of the bar.

The stream of the tide changes on an average $1\frac{1}{2}$ hours after the water has ceased to rise and $1\frac{1}{2}$ hours after the water has ceased to fall off Chitta-

* Reported lumps on the bar appear to be often caused by the grounding of vessels, the tendency thus arising for a bank to form around the vessel, more especially on the up-river side, or that exposed to the ebb stream.

* If caught upon the bar and unable to set either out or in, there is anchorage for one ship of 17 feet draught at low-water, close to the middle red buoy.

gong, and $1\frac{1}{2}$ hours after the same cessations in the neighbourhood of Jooldia.

During the rainy season, April to September, the ebb tide runs with great strength. Under ordinary conditions the tidal streams average about 9 knots at neaps, and from 3 to 4 knots at spring tides.

THE EASTERN CHANNEL.—Into the Karnaphuli River, which in 1877 only carried quarter of a fathom of water, has now from 6 to 7 feet at low water, and though only two cables in width in its narrowest part, may be made use of by steam-vessels, there being less tide and sea in it than in the main channel over the bar.

TO ENTER.—The northern of five trees on Five-tree Hill, seen open just southward of Big Tree in a village half a mile eastward of Norman's Point, on a bearing of north 64° east, leads in through the narrowest and deepest part, until the Leading Tree northward of Jooldia Hill flagstaff is seen just open to the right or eastward of the white triangle on the pole situated on the river bank to the southward of the white pillar on a ridge, on a north 25° east bearing, which will lead up until past the small black buoy (which makes the western side of the 7 foot patch), and nearly to abreast Jooldia tide-gauge, when the white barrel on the tripod in line with the white cross on tripod on the eastern or left bank, and two miles northward of Jooldia flagstaff, will be made out, and should be steered for on a north 15° east bearing.

PILOTS.—Vessels strange to the port of Chittagong, and those of large draught, should invariably take a pilot, anchoring in from 30 to 36 feet outside the bar, with Norman's Point light-house bearing east-north-east, distant about $2\frac{1}{2}$ miles, and Patunga flagstaff north by west $\frac{1}{4}$ west, making the requisite signal.

There are two Government pilot cutters of about 30 tons burden, their distinguishing flag shown at the masthead, having a single white and red horizontal band: one of these will generally be found at anchor about 3 mile, south west of the outer bar buoys. In 1883 two of the pilots were Europeans, the remainder natives; all are well conversant with the navigation of the river and may be trusted.

The pilotage rates are as follows: steam vessels are charged a half, and vessels taking steam to tow them, two-thirds pilotage rates:—

DRAUGHT IN FEET.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23*
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
In or out	30	36	42	50	60	70	80	95	110	125	140	160	180	205	230	260

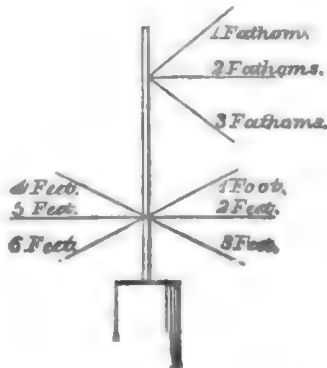
* For every foot or part above 23 feet an additional sum of Rs. 32 will be charged. Three-fourth rates will be charged for steamers and vessels towed by steam.

Vessels can make arrangements for being towed by the mail steamers of the British India Steam Navigation Company, which arrive twice a week. A tug boat is expected to be attached to the port in the course of the year 1883.

PORT DUES.—Are $4\frac{1}{2}$ annas per ton. Vessels in ballast are charged at three-quarters of this rate.

MOORINGS.—There are sixteen sets of moorings for first class ships. Of these, fourteen are swinging moorings, this method being judged necessary for accommodation and safety during the south-west monsoon.

TIDAL SIGNALS.—Are exhibited in the day time from the semaphore on Jooldia Hill to vessels outside the bar, and denote the rise of tide on the bar above the level to which the Admiralty Chart of 1883 is reduced.



JOOLDIA HILL.—About 88 feet high, has upon its summit a prominent flagstaff, a semaphore pole, and a well built Government bungalow with a large wide-spreading tree close to the southward of it.

From the flagstaff the various signals regarding shipping and weather are signalled, and from the semaphore the depth of water on the bar.

GEOGRAPHICAL POSITION.—Jooldia flagstaff is situated in latitude $20^{\circ} 14' 6''$ N, longitude $91^{\circ} 49' 55''$ E, depending upon the latest position of Madras Observatory as being in longitude $80^{\circ} 14' 51''$ E of Greenwich.

FIVE-TREE HILL.—Has the appearance from the river of forming the southern limit of an extensive table land, of which Jooldia Hill forms a part, and has upon it, as its name denotes, five trees, of which the central one is the most prominent.† The northern tree forms a mark for the eastern channel into the Karnaphuli River.

SOLITARY TREE.—Is round and bushy, and crowns a steep detached hill about the same height as, and situated three cables south-eastward of, Jooldia flagstaff; it forms an unmistakable mark when navigating up or down the river.

LEADING TREE.—On the ridge about a mile north of Jooldia flagstaff hill, has a rugged looking trunk and flat umbrella-like top. Used in conjunction with the triangle and disc on a pole on the river bank on its southern side, as well as with the single triangle on the river bank on its northern side, it is a leading mark for ascending and descending the river.

WHITE PILLAR.—Is situated on the highest part of the ridge between Jooldia flagstaff hill and leading tree. The pillar is 15 feet high square, built of brick and coloured white, having steps on its eastern side, and is surmounted by a lantern which it is proposed to use as a guide to vessels leaving the river at night.

The lantern is elevated about 90 feet above high-water. White pillar seen in line with the south-east or right-hand corner of the white triangle on an iron pole, situated on the river bank, to the southward of it, bearing north 40° east, leads over the outer part of the bar in 9 feet at low-water spring tides.

TIDE-GAUGES.—At a distance of $2\frac{1}{2}$ cables west-south-west of Norman's Point is a disused tide-gauge, which covers at high-water ordinary spring tides.

Off Jooldia Hill station, on a north-west bearing from the semaphore, distant 4 cables, or on the edge of the mud bank lining the river, is a tide-gauge marked in steps at every 3 feet, by which the tidal signals governing the entry and exit of vessels, as signalled from the Semaphore, are judged.

Zero on this tide-gauge represents the level to which the soundings on the Admiralty Chart of 1883 are reduced.

BENCH MARK.—The upper surface of a flat white stone under a banyan tree at the foot, and to the westward of Jooldia Hill, is 29 feet 12 inches above the level to which the soundings on the Admiralty Chart are reduced, or above zero on the local tide-gauge. The heights upon the same chart are also expressed above the upper surface of this stone.

CROSSING MARKS.—Two miles northward of Jooldia Hill flagstaff, on the east or left bank of the Karnaphuli River, is a tripod surmounted by a barrel, the whole painted white; and 280 yards north 15° east of this tripod, situated amongst houses and trees, is a second tripod surmounted by a pole, on which is a white cross facing southward, and over the cross a white disc facing westward.

The barrel and cross in line lead up in deep water through the Jooldia basin, clear of danger.

FLAT TREE.—Is a widespread tree with dark green foliage, situated on the northern part of the ridge or group of hills, of which Jooldia Hill form a part. It bears from Jooldia flagstaff north 14° east, distant 2 miles 1 cable nearly.

Flat Tree in line with the white disc on the northern of the two tripods previously described on a south 87° east bearing, leads in 13 feet at low-water over the second bar, which extends eastward across the river from the north-east point of Patunga Island.

JOOLDIA VILLAGE.—Is long and straggling, consisting of bamboo cottages, enclosed by bamboo and leaf fences. Narrow lanes run in all directions amongst them. Numerous fresh-water tanks are scattered over the face of the country near the villages of and around Jooldia, many of which are overgrown with weeds.

Between Flat Tree Hill on the northern extreme of the Jooldia range and the group of low hills at the back of the town of Chittagong, there are no natural features calling for note.

A POLE.—Used as a crossing mark on the western or right bank of the river is situated on the north-east part of Patunga Island. It is almost in the same line as that with the white disc over white cross on tripod with Flat Tree on ridge, and is a rough guide for crossing when bound up river. It also denotes the limit to which vessels of 23 feet draught may be moored in the pool of the river above the second bar.

THE SECOND BAR Extends across the river at the elbow formed by the trend of the reaches of the river around the north-east point of

* The longitude of Chittagong was redetermined in 1883 by an officer of the (Great Trigonometrical) Survey. The results of his observations are not yet published.

† In reality the group of hills forming this apparent table land are much cut up with numerous projecting spurs, detached peaks, and twisting valleys, but in the distance the whole blends together and assumes a flat even-topped appearance.

Patunga Island, and has over it from 13 to 14 feet at low-water ordinary spring tides.

THE CROSSING MARK—Is the white disc over the white cross on the northern tripod on the east or left bank of the river on with Flat Tree on the ridge half a mile to the eastward, on the bearing of south 87° east.

After the second bar, the navigation in the ascent of the river to abreast the town of Chittagong is easy until the bar of hard ground, the shoalest part of which is marked by a buoy with staff and ball coloured in horizontal bands of red, black, and white, is reached. This buoy in 12 feet may be passed on either side in a depth, at low-water, of 13 feet, but threading a vessel's way amongst the shipping, if strange to the place, will prove hazardous, and before this part is reached, the services of a local pilot should be engaged.

WRECKS.—In 1883 the wreck of a vessel on the southern extremity of the spit extending southward from Patunga Point was visible at low-water, and 8 cables south 51° west from the highest light tripod on Norman's Point; the wreck of a full-rigged iron vessel,* with the upper deck level with the water and masts standing, formed a conspicuous mark when approaching the mouth of the Karnaphuli River from the southward.

INNER BUOYS.—A small black can buoy marks the western edge of a 7 feet patch inside the river off Jooldia flagstaff. From it Jooldia flagstaff bears north 63° east and Patunga flagstaff north 81° west.

This patch may be passed on either side, but if using the Western channel, the west side of it is the side that should be kept.

A SMALL BLACK CAN BUOY—Is situated off the mud flat on the east or left bank of the river above Jooldia flag-staff. It is intended as a mark for the western limit of a protuberance which is about a cable south-west of it, which latter extends from the shore bank, having over it as little as 11 feet at low-water. From the buoy Jooldia flagstaff bears south 7° east and leading tree north 69° east. The channel lies on the west side of this buoy.

TWO RED CAN BUOYS.—Are situated between Jooldia and the second bar. They are intended to mark the eastern limit of the bank extending out into the river from the north-east part of Patunga Island. The channel lies between these red buoys and the eastern or left bank of the river.

These buoys bear from one another north and south, and are nearly 3½ cables apart. From the northern leading tree bears south 39° east, distant 5½ cables, and from the southern the same object bears south 80° east, distant 3½ cables.

Above or northward of the north-east point of Patunga, known as Goapta-khali Point and the second bar, the deep water channel of the river lies near the western or right bank, and so continues until the mooring buoys of Chittagong are reached.

Six creeks enter the river on the western side between Chittagong and the second bar, named consecutively, working from the southward, Goapta-khali, Coota-khali, Kalla-khali, Doma-khali, Cooma-khali, and Mahesh-khali.

The eastern bank becomes low and swampy, and is broken up into four distinct mud-formed islands locally known as *chirs*; to these grass-cutters resort in their canoes. There is a passage for boats eastward of these *chirs* at high-water.

MAHESH-KHALI CREEK or canal, enters the Karnaphuli River about 1½ miles south-westward of, or below the town of Chittagong, and after circuitously cutting across the low land forming the western bank of that river, enters the Sandwip Channel about 2½ miles south of Patunga Point, rendering the apparent peninsula of Patunga an island at high water. Although this creek affords a safe and expeditious route for the many cargo boats and small craft plying with cargoes of rice and jute from the ports of the Meghna River, by the crews of which the navigation round Patunga Point is so much dreaded, it was, in 1883, nearly silted up, affording a passage only for the smallest sized boats at high water.

FAKEER'S HILL.—Of moderate height, near the western extremity of the Chittagong cluster of hills, and on the summit of which is a prominent tree, is the only conspicuous mark in the background of the river after the Jooldia group of hills is passed. From the Sandwip Channel it is reported to be visible at a distance of 15 miles on a clear day.

FIVE BLACK CAN BUOYS mark the western edge of the bank on the east side of the channel above the second bar, and there are fourteen large black can mooring buoys, which may be distinguished from those marking the channel by the fact of their being many sizes larger.

A striped ring buoy marks the shoalest part of a bar of hard ground situated half a mile westward of the Government pier, Chittagong. On this bar there is only 13 feet at low-water.

CHITTAGONG PORT—Is the second in importance and prosperity of the ports of Bengal, and affords fairly easy access and safe anchorage to ships of 20 feet, and at spring tides even of 24 feet draught.

With the improvements in lighting and buoying, the approaches to Chittagong, the moorings which have recently been laid down for large vessels,

* The *Bannockburn* scuttled, having caught fire in the river in 1883.

and a steam-tug which will shortly be introduced, Chittagong should continue to increase in mercantile prosperity.

The proximity of the port of Chittagong to the river Meghna, topping as that river does, much of the country traversed by the Ganges and Brahmaputra, and offering a water-way to the numerous native brigs and other craft which carry down from the rapidly developing river port of Narayanganj, jute, rice, &c, in time will probably again earn for it its former title, the "Porto Grande" of the Portuguese navigators, who in former years frequented it. Judging by the survey of 1883, there appears no foundation for the report that the right bank of the river off Chittagong town is gradually shoaling.

The port of Chittagong and the navigable river and channels leading thereto are subject to the Indian Ports Act of 1875. The limits of the port are :—

To the north-east—a line drawn across the river Karnaphuli from the boundary pillar at the mouth of the Chaktai Nulla, to the boundary pillar on the opposite bank.

To the south—a line drawn from Jooldia flagstaff to Patunga beacon.

These limits include the river and the shores lying within fifty yards of high-water mark at ordinary spring tides.

The limits of the navigable river and channel leading to the port of Chittagong are as follow :—

To the north-east—the port of Chittagong as above defined.

To the south—a line drawn west from Norman's Point light-house.

To the north—the port as defined above, and from Patunga beacon a line drawn due west sea-ward.

To the west—a line drawn parallel to the line between Patunga beacon and Norman's Point light-house at a distance of 4 miles.

To the east—the south bank of the river between Jooldia and Norman's Point light-house.

All parts of the river between these limits and below high-water mark at spring tides, are subject to the Act.

A telegraph wire stretches across the river just above the town of Chittagong at a height of about 50 feet above high water. Small vessels bound up river, should lower their upper masts in consequence.

PORT DUES are levied at the following rates, once in 60 days, in the port of Chittagong.

Balam* boats of 10 tons and upwards, 1 anna per ton burthen.

All other sea-going vessels of 10 tons and upwards, 4½ annas for every ton burthen.

TRADE.—The trade report of Chittagong for the year 1881-82 showed an increase over that of 1880-81 of upwards of 45 lakhs of rupees, or about £380,000. The value of the trade in the latter year amounting to £1,571,956, and the number of vessels which entered and cleared the port to 96, representing an aggregate of 68,100 tons, or 19,319 tons in excess of the 71 vessels entered and cleared in the year 1880-81.†

Jute can be loaded at 6 to 7 annas per ton.

Salt discharged at the same price. The average disbursement of vessels arriving in ballast and loading rice cargoes is as follows :—

	Rs.	Rs.
300 tons ...	1,200	to 1,400
600 " ...	1,700	to 1,900
1,000 " ...	2,800	to 2,600

} exclusive of towage.

Vessels arriving in ballast and loading jute—

1,200 to 1,400 tons, Rs. 6,000, including towage.

Steamers loading jute—

1,200 to 1,500 tons, Rs. 5,000 to 7,000.

Rice can be loaded by sailing vessels generally in two-maund bags, at from 2 to 3 annas per ton; by steam-vessels at 4 annas per ton.

Stone ballast may be procured at from 12 annas to Rs. 1-8 per ton, and can generally be discharged free of expense to the ship.

Mud ballast is also procurable.

Ballast can be discharged at 4 annas per ton.

LABOUR.—Coolies can be hired at from 7 to 8 annas per day, or by contract rates.

EXPORTS.—The export of jute is rapidly increasing. Rice, paddy, tea, and cotton are also largely exported.

IMPORTS.—Salt in large quantities from Great Britain, earth oil, and piece-goods, and occasionally timber from Rangoon.

SUPPLIES.—Fresh provisions are to be had at Chittagong at moderate prices, but fresh-water is not easily procured, the price for delivery alongside

* Boats peculiar to the locality, which carry cargo; the planking is sewn together, and the frame-work jointed. No nails or bolts are made use of in their construction.

† A variety of quaint little country crafts averaging from 50 to 300 tons, and resembling brigs in their rig and sails, ply between Chittagong and Narayanganj on the Meghna. It would seem that these vessels partake of the relics of seamanship handed down to the descendants of the early Portuguese navigators, who effected a settlement in this part as far back as 1664.

amounting to from Rs. 25 to Rs. 30 per 1,000 gallons. For washing purposes the water brought down by the last of the ebb, about 2 miles above the town, will be found sufficiently cleanly.

COAL in quantities up to 100 tons can generally be purchased at a cost (for Welsh coal) of Rs. 25 per ton.

COMMUNICATION.—The great trunk road to Dacca to the northward runs from Chittagong parallel to, and at about three miles from the eastern coast line of the Sandwip Channel. There is a daily post by land to Calcutta, and a telegraph office with facilities for telegraphing throughout India and Europe. Telephonic communication between Chittagong and Joodia is, it is expected, to be shortly accomplished. Weekly mail steamers run direct to and from Calcutta.

Funds are said to have been granted for a railway, which will connect Chittagong and Daudkandi, Eastern Bengal, in which case the jute trade, at present conducted by small vessels from Naráyánganj, will receive a fresh impetus, and probably increase.

REPAIRS.—Vessels of any size up to 1,400 tons can have their bottoms repaired or cleaned by beaching on a bank of hard sand, bearing south-south-east, distant $\frac{1}{2}$ of a mile, from the Port Officer's flagstaff, near the landing jetty at Chittagong. It is advisable to hire the Government anchor buoy on these occasions, which may be procured for the purpose of laying out the necessary anchors at a cost of Rs. 64.

THE TOWN OF CHITTAGONG.—Also named by the Moghuls in 1665, Islamabad, or the Residence of the Faithful, has an interesting early history attached to it.* It is situated on the western or left bank of the Karnaphuli River at about 12 miles from its mouth, and lies scattered with its villages amongst a group of small, steep, table-topped hills, the whole covering an area of nine square miles.

The European residents inhabit the bungalows built on the summits of these hills, and, generally speaking, each house has a hill to itself.

The chief buildings are the Government offices, Roman Catholic Cathedral, Protestant Church, a large mosque, school-houses, dispensary, post office, and club house.

The merchants' offices and business quarters fringe the rivers bank. Near at hand are the offices of the French and United States Consuls, two mills for cleansing rice.† Agencies for various shipping companies, port office, custom-house, &c.

The total population amounts to 20,604, of which the greater number are males, owing to the fact that the population chiefly consists of men who come from other parts either for trade or in search of employment, leaving their families at home.

Ship-building was formerly carried on to a considerable extent, but of recent years has fallen away. Ship repairs, however, can still be effected at about the same rates as are charged at Calcutta.

HEALTH.—Although the low lying native town of Chittagong, on account of the numerous disused fresh-water tanks, overgrown with rank vegetation, is considered unhealthy, the port is not by any means worse in this respect than other river ports of India. Vessels visiting Chittagong are permitted the benefit of the attendance of a Government surgeon at a moderate charge.

The most unhealthy month of the year is September, or towards the close of the rainy season. Fever is then prevalent. In the months of April and May epidemics of small-pox and cholera are most to be expected. An easterly wind, if of long continuance, is said to be unhealthy. In the cold season northerly winds are most common.

WINDS AND WEATHER.—The situation of Chittagong exposes it to the force of the south-west monsoon, and the rainfall is generally heavy, averaging between 105 and 106 inches.‡ A sea breeze usually prevails during the day, rendering the air comparatively cool. The atmosphere is frequently loaded with moisture, causing heavy dew at night and occasionally dense fogs.

The prevailing winds from March to May are from south-west; from June to September they blow from the south-east; and from October to February from north-east.

From the middle of October to March, the weather is fine and settled; but towards April, or the end of the season, the wind becomes more easterly, with occasional heavy north-westers in the afternoon.

From about the middle of April the south-west monsoon blows fresh in the upper part of the Bay of Bengal; but near the land in the north-east part of the Bay, land and sea breezes are met with.

Near Chittagong, in the forenoon, the wind generally blows from the south-east and is moderate; towards the afternoon freshening up and veering to the south-west quarter.

In June and July, during the height of the south-west monsoon, it blows hard from south-south-east to south-west with rain, leaving now and then a few comparatively fine days.

* Stewart's History of Bengal. pp. 187–189.

† Rice at Chittagong in husking is parboiled before shipment. This is said to give it a superiority as a grain cargo, over rice not similarly treated, which latter is liable in bulk to accumulate heat at times to a dangerous extent.

‡ At the beginning of the present century Chittagong was considered a sanitarium, and resorted to from Calcutta on account of its cool sea breeze.

The velocity of the wind is least in October and greatest during June and July.

The following is the monthly mean meteorological table resulting from observations made at Chittagong :—

MONTH.	Temperature.	Barometer.	Cloud proportion.	Rainfall.
January	68°8	29°917	0°98	0°56
February	71°6	29°871	1°32	1°96
March	77°9	29°802	2°66	1°31
April	81°8	29°750	3°72	4°70
May	82°0	29°651	4°35	9°18
June	81°9	29°552	9°81	22°46
July	81°0	29°544	7°19	22°27
August	81°0	29°680	6°81	21°43
September	81°4	29°669	5°96	12°03
October	80°2	29°768	3°87	6°32
November	74°4	29°885	1°00	1°81
December	68°3	29°937	1°39	0°41

CYCLONES.—Although the neighbourhood of Chittagong is much exposed, serious injury by cyclones is not often caused. In 1849 and again in 1872 and in 1876, severe cyclones accompanied by storm-waves, worked great havoc in the district. In 1849 large quantities of slime and salt were left upon the soil when the sea water had again subsided to its natural level. In 1876 a severe epidemic of cholera occurred immediately after the cyclone, numbers of natives as well as several Europeans falling victims.

WEATHER SIGNALS.—The following arrangements for weather signals for the port of Chittagong, sanctioned by Government in November 1882, are only used within the limits of the port to give notice to the shipping and general public of the early approach of a severe cyclone with its attendant storm-wave. They are hoisted on the flagstaff of the Port Officer and on the yard-arm of the flagstaff at Joodia, on receipt of instructions from the Meteorological Office at Calcutta :—

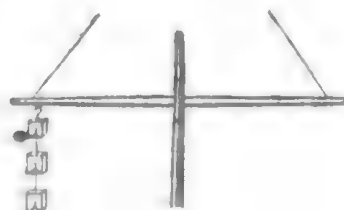
1. Day warning signal.



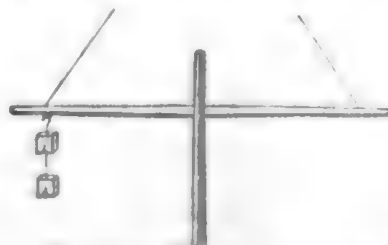
2. Day danger signal.



3. Night warning signal.



4. Night danger signal.



A Ball indicates that a severe cyclone, of which the centre is in the neighbourhood of the coast, is advancing towards the mouth of the river, and will probably advance towards Chittagong.

A Drum indicates that a severe cyclone with its attendant storm-wave is approaching Chittagong.

Three lights in a vertical plane indicate that a severe cyclone, of which the centre is in the neighbourhood of the coast, is advancing towards the mouth of the river, and will probably advance towards Chittagong.

Two lights in a vertical line indicate the early approach of a severe cyclonic storm and its attendant storm-wave, to the port of Chittagong.

EARTHQUAKES.—Occur at rare intervals, although the shock of them is said to be often felt, generally in the winter season.

In April 1872 Chittagong was violently shaken by one of these phenomenon, the earth opening in many places and throwing up mud and water. In 1865 and as recently as 1852 shocks of earthquakes are reported to have been noticed.

NOTIFICATION.

The 26th June 1883.—Plans and an estimate, amounting to Rs. 1,23,596, for the construction of an anchor vessel for the port of Calcutta, having been submitted by the Commissioners for making Improvements in the Port of Calcutta with their Vice-Chairman's letter No. 636, dated the 23rd May 1883, the Lieutenant-Governor sanctions the expenditure under the provisions of section 35 of Act V (B.C.) of 1870.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

[Second Publication.]

NOTIFICATION.

The 19th June 1883.—The following Gilchrist Scholarship Regulations are published for general information.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

GILCHRIST EDUCATIONAL TRUST.

Trustees:

RICHARD LEIGH HOLLAND, Esq., (*Chairman*).
EDGAR ALFRED BOWRING, Esq., C.B.
RT. HON. LYON PLAYFAIR, C.B., M.P., LL.D., F.R.S.
SIR UGHTRED JAMES KAY-SHUTTLEWORTH, BART.
THE HON. ALFRED LYTTELTON.

Secretary:

WILLIAM B. CARPENTER, Esq., C.B., M.D., LL.D., F.R.S.

[All communications to be addressed to

The Secretary of the Gilchrist Educational Trust,

4, The Sanctuary, London, S.W.]

Conditions for Scholarships instituted by the Gilchrist Educational Trust for the benefit of Natives of India.

[These Scholarships, like the Degrees and other Academical Rewards of the University of London, are open to Women upon exactly the same conditions as to Men.]

A SCHOLARSHIP of the value of £150 per annum, and tenable for four years, will be annually awarded to a candidate, born in India, who shall become eligible by competitive examination, and shall be desirous of prosecuting a course of Academical study in Great Britain with a view to graduation in one of the Faculties of Arts, Science, Law, or Medicine, in the University of London, under the following conditions:—

1. Of the parents of each candidate one at least shall belong to one of the native races.

2. Every candidate must furnish proof satisfactory to the local authorities that he has completed his sixteenth year, and that his age does not exceed twenty-two years.

3. Every candidate must furnish proof satisfactory to the local authorities that, in regard to personal character and social position, he is qualified to be admitted to competition for a scholarship.

4. Candidates approved by the local authorities shall present themselves at the January Matriculation Examination of the University of London, which will be held simultaneously, under the direction of Government Sub-Examiners, at the three presidential capitals, commencing on the second Monday in January.

5. The answers of the candidates, approved as aforesaid, will be forwarded, through the India Office, to the Registrar of the University, who will cause them to be reviewed by the Examiners, and who will forward their report to the India Office for transmission to the local authorities in the presidential capitals, to be by them announced to the candidates.

6. The scholarship shall be awarded to the candidate whose aggregate of marks stands highest, provided that he passes either in the Honours or in the First Division. Such candidate shall have his choice whether he will pursue his curriculum of study in the University of Edinburgh or in University College, London.

7. The successful candidate will be provided by the Government of India with a free passage to England; and will be expected to arrive in London, and to present himself to the Secretary of the Gilchrist Trust, not later than the first week in the October following his appointment.

8. The scholarship shall be considered as commencing from the 1st of July following the award of the Examiners; and shall be paid in quarterly instalments on the first days of October, January, April, and July.

9. Each scholar shall attend in every session at least three courses of lectures at the institution in which he studies; and shall transmit to the Secretary of the Gilchrist Trust, at the conclusion of each session, a certificate from each of the Professors, whose lectures he has attended, stating that his diligence and conduct have been satisfactory. Should he not be able to produce such a certificate, or should he be proved guilty of discreditable conduct elsewhere, he shall be considered to have forfeited his claim to the remaining instalments of his scholarship.

10. Each scholar shall be expected to present himself at the first examination in one of the Faculties of Arts, Science, Law, or Medicine in the University of London before the termination of the second (Academical year* from the commencement of his scholarship, unless excused from doing so by the Trustees; and if he do not so present himself (unless by permission of the Trustees), or if he fail to pass, he shall be considered as forfeiting his claim to the remaining instalments of his scholarship. After having passed the first examination he will be expected to pursue his studies with the view of presenting himself at the next examination within two (Academical) years.

11. A grant of Fifty Pounds will be made by the Trustees for the return passage of every scholar who shall succeed in obtaining his degree in the University of London. For every scholar who may fail to obtain his degree a return passage will be provided by the Government of India.

12. The foregoing scheme shall be subject to revision from time to time, the Trustees reserving to themselves the power of altering the conditions of the scholarships, or of altogether withdrawing them, if they deem it expedient to do either. But no change will be made in such a manner as to affect the interests of candidates already appointed to scholarships, or in any case without twelve months' notice.

* Thus a candidate whose scholarship commences on the 1st of July 1884 would be considered as having fulfilled this condition if he pass the Intermediate L.L.B. Examination in January 1886; or the Intermediate B.A., the Intermediate B.Sc., or the Preliminary Scientific M.B. Examination in the following July.

(Second Publication.)

NOTIFICATION.

The 19th June 1883.—The following notices are published for general information.

A. P. MACDONNELL,

Offg. Secretary to the Govt. of Bengal.

NOTICE TO MARINERS.—(No. 53).

CEYLON—SOUTH COAST.

POINT DE GALLE HARBOUR APPROACH.

Buoy marking Para Rock Shoal.

THE Government of Ceylon has given notice that a buoy has been placed to mark the south-western edge of Para rock shoal, approach to Point de Galle harbour.

The buoy, painted black and white in horizontal stripes, is moored in $7\frac{1}{2}$ fathoms, with the following bearings.—

Bayley's Villa, Glosenburg	..	..	..	N.N.E. $\frac{1}{2}$ E.
Point de Galle lighthouse	..	..	..	N.W. $\frac{1}{2}$ N.

Note.—As this buoy is placed mainly for the information of the pilots, vessels making the port should not proceed northward of the bell buoy marking the Outer Cadda rock until a pilot has been received.

(The bearings are Magnetic. Variation 1° Easterly in 1883.)

By Command of their Lordships,

FRED. J. EVANS,

Hydrographer.

HYDROGRAPHIC OFFICE, ADMIRALTY, LONDON, the 23rd February 1883.

This notice affects the following Admiralty Charts:—Ceylon, southern part, No. 818; Point de Galle, approaches to, No. 819; Point de Galle harbour, No. 820: also West Coast of Hindostan Pilot, 1880, page 42.

NOTICE TO MARINERS.—(No. 81).

ARRACAN COAST.

PORT OF SANDOWAY.

BUOY MARKING DRUNKEN SAILOR SHOAL.

A BUOY has been placed near the south end of Drunken Sailor shoal, entrance to port of Sandoway.

The buoy (first class), conical, coloured red, and carrying a basket on a spire, is moored in 6 fathoms at low water, with the following bearings:—

Rest house, north bank, Sandoway river entrance	..	N. 78° E.
Bluff point, south bank	..	East.
Detached rock	..	S. 46° E.

Position approximate, lat. $18^{\circ} 33' 25''$ N., long. $94^{\circ} 8' 40''$ E.

Note.—Vessels may pass between Detached rock and this buoy, and, hauling up N.N.E., anchor in about 6 fathoms, mud and sand, with Bluff point bearing East, distant half a mile.

(The bearings are Magnetic. Variation $2\frac{1}{2}^{\circ}$ Easterly in 1883.)

By Command of their Lordships,

FRED. J. EVANS,

Hydrographer.

HYDROGRAPHIC OFFICE, ADMIRALTY, LONDON, the 28th March 1883.

This notice affects the following Admiralty Charts:—Cheduba strait to Corohge island, No. 822; Cheduba strait and Ramree harbour, No. 832.

[Third Publication.]

NOTIFICATION.

The 12th June 1883.—The following telegram, received from the Government of India, Home Department, dated the 8th instant, is published for general information.

The 8th June 1883.

To—Darjeeling.
To—Bengal, General.

From—Simla.
From—Home.

FOLLOWING received from British Consul, Constantinople. Message begins:—"In reply to questions from Consul at Jeddah, English Delegate at Board of Health communicates following:—Ottoman Health Department is endeavouring to make arrangements with Khedive Steam Ship Company for conveyance of pilgrims from Camaran to Jeddah. Nothing settled yet. Pilgrim ships are vessels specially freighted for transport of pilgrims to Mecca. A few pilgrims, number not determined, taking passages by other vessels will not render those vessels subject to pilgrim regulation. Message ends.

A. P. MACDONNELL,
Offg. Secretary to the Govt. of Bengal.

JUDICIAL DEPARTMENT.

No. 1717A.

The 14th June 1883.—The Lieutenant-Governor accepts the resignation tendered by Baboo Dowlat Chunder Rai of his appointment of Honorary Magistrate of the Sealdah Bench, in the district of the 24-Pergunnahs.

Baboo Jodu Nath Chuckerbutty, Sub-Inspector of Schools, is appointed to be an Honorary Magistrate for the Nelpamari Bench, in the district of Rungpore, and is vested with the powers of a Magistrate of the third class.

The 18th June 1883.—Baboo Jagubandhu Gangooly, Officiating Subordinate Judge of Moorshedabad, is appointed to act temporarily as Third Subordinate Judge of Hooghly, with effect from the date on which he joined his appointment.

Baboo Mohendro Nath Mitter, Subordinate Judge and Small Cause Court Judge, Moorshedabad, is appointed to be Subordinate Judge of Burdwan.

Baboo Jogesh Chunder Mitter, Additional Subordinate Judge of Burdwan, is appointed to be Subordinate Judge of Moorshedabad, but will be employed as Additional Subordinate Judge of Furreedpore until the commencement of the next Dusserah vacation.

Baboo Beni Madhub Mitter, Second Subordinate of Backergunge, is appointed temporarily to be Additional Subordinate Judge of Tipperah, with effect from the 1st July next.

Baboo Ram Persad, Subordinate Judge of Shahabad, is appointed to be a Subordinate Judge of Tirhoot.

Baboo Koylash Chunder Mookerjee, Officiating First Subordinate Judge of Tirhoot, is appointed to be Subordinate Judge of Shahabad.

Baboo Radha Krishna Sen, Temporary Subordinate Judge, Bankoora, is appointed to be Additional Subordinate Judge of Burdwan, with effect from the 12th July next.

Baboo Saroda Prosad Chatterjee, First Munsif of Bhanga, in Furreedpore, is vested with the powers of a Judge of a Court of Small Causes for the trial of suits cognizable by such a Court up to the amount of Rs. 50.

The 19th June 1883.—Baboo Okhoy Coomar Mitter is appointed to act as an Additional Munsif in the district of Noakholly, and to be ordinarily stationed at Dewangunge.

The 25th June 1883.—Baboo Anand Chandra Mallick, Munsif of North Raojan (Sultanpore), in the district of Chittagong, is appointed to be a Munsif in the district of Bankoora, and to be ordinarily stationed at Gangajalghati.

Baboo Jogendro Nath Bose, Munsif of Gangajalghati, in Bankoora, is appointed to be a Munsif in the district of Furreedpore, and to be ordinarily stationed at Moolfutgunge.

Baboo Koylash Chunder Moozoomdar, Munsif of Moolfutgunge, in Furreedpore, is appointed to be a Munsif in the district of Jessore, and to be ordinarily stationed at Bagirhat.

Baboo Koylash Chunder Moozoomdar is also appointed to be a Munsif of Khoorna.

Baboo Hari Prasad Das, Munsif, Bagirhat and Khoorna, in Jessore, is appointed to be a Munsif in the district of Backergunge, and to be ordinarily stationed at Patuakhally.

Baboo Upendro Nath Bose, Munsif of Patuakhally, in Backergunge, is appointed to be a Munsif in the district of Purneah, and to be ordinarily stationed at Arrareah, but will continue to act, until further orders, as Munsif of Chupra.

Baboo Karonamoy Banerjee, Munsif of Arrareah, in Purneah, now employed temporarily as Additional Munsif of Kishengunge, is transferred to the sudder station of that district.

Baboo Ganesham Gupta, Munsif of Purneah, is appointed to be a Munsif in the district of Bhagulpore, and to be ordinarily stationed at Muddehpura.

Moulvie Attah Hossein, Munsif of Muddehpura, in Bhagulpore, is appointed to be a Munsif in the district of Gya, and to be ordinarily stationed at Aurungabad.

Baboo Gokul Chand, Munsif of Aurungabad, in Gya, is appointed to be a Munsif in the district of Manbhoom, and to be ordinarily stationed at Purulia.

Baboo Preo Nath Sarma, Munsif of Purulia, in Manbhoom, is appointed to be a Munsif in the district of Rungpore, and to be ordinarily stationed at Nelphamari.

Baboo Gobind Chandra Dey, Munsif of Nelphamari, in Rungpore, is appointed to be a Munsif in the district of the 24-Pergunnahs, and to be ordinarily stationed at Diamond Harbour.

Baboo Purna Chundra Mitter, Munsif of Dukhin Shabazpore, in Backergunge, is appointed to be a Munsif in the district of Rajshahye, and to be ordinarily stationed at Nattore.

Baboo Probodh Chunder Dutt, Munsif of Nattore, in Rajshahye, on leave, is appointed to be a Munsif in the district of the 24-Pergunnahs, and to be ordinarily stationed at Basirhat.

Baboo Purna Chunder Roy, Munsif of Basirhat, in the 24-Pergunnahs district, is appointed to be a Munsif in the district of Chittagong, and to be ordinarily stationed at North Putteah.

Baboo Har Kumar Roy, Munsif of North Putteah, in Chittagong, is appointed to be a Munsif in the district of Sylhet, and to be ordinarily stationed at the sudder station (North Sylhet).

Baboo Soshi Bhusan Sen, Munsif of North Sylhet, is appointed to be a Munsif in the district of Tipperah, and to be ordinarily stationed at Muradnugger.

Baboo Krisno Prosad Chowdhri, Munsif of Muradnugger, Tipperah, is appointed to be a Munsif in the district of Mymensingh, and to be ordinarily stationed at Hosseinpore.

Baboo Obhoy Kumar Sen, Munsif of Manickgunge, in Dacca, is appointed to be a Munsif in the district of Midnapore, and to be ordinarily stationed at Tumlook.

Baboo Nund Lal Koondoo, Munsif of Tumlook, in Midnapore, on deputation at Ghattal, is appointed to be a Munsif in the district of Tipperah, and to be ordinarily stationed at Chandpore.

Baboo Kamjadh Talapatro, Additional Munsif of Chandpore, in Tipperah, is appointed to be a Munsif in the district of Moorsshedabad, and to be ordinarily stationed at Azimgunge.

Baboo Rabi Chunder Gangooly, Munsif of Azimgunge, Moorsshedabad, on leave, is appointed to be a Munsif in the district of Sylhet, and to be ordinarily stationed at Habigunge.

Moulvie Syed Fakhruddin Hossein, Munsif of Jamui, Bhagulpore, is appointed to be a Munsif in Chota Nagpore, and to be ordinarily stationed at Hazaribagh.

Moonshee Sadanand, Munsif of Hazaribagh, Chota Nagpore, is appointed to be a Munsif in the district of Bhagulpore, and to be ordinarily stationed at Jamui.

Moulvie Abdul Kureem, Junior, Munsif of Palamow, Lohardugga, is confirmed in the first grade of Munsifs, *vice* Baboo Surja Kant Chowdhuri, deceased.

Baboo Jogendra Chandra Mallik, Munsif of Narail, Jessore, is confirmed in the second grade of Munsifs, *vice* Moulvie Abdul Kureem, Junior.

Baboo Debendra Nath Roy, Munsif of Netrokona, Mymensingh, is appointed to be a Munsif of the third grade, *vice* Baboo Jogendra Chandra Mallik.

Baboo Mohim Chandra Sircar, Officiating Munsif of Burra Bazar, Manbhoom, is appointed to be a Munsif of the fourth grade, *vice* Baboo Debendra Nath Roy, and to be a Munsif in Chota Nagpore, to be ordinarily stationed at Burra Bazar.

Baboo Jogendra Nath Mookerjee, Senior, Munsif of Ghosegong, Mymensingh, is confirmed in the third grade of Munsifs, *vice* Baboo Brojo Nath Roy, deceased.

Baboo Nilmadhub De, Officiating Munsif of Brahmunberiah, Tipperah, is confirmed in the fourth grade of Munsifs, *vice* Baboo Jogendra Nath Mookerjee, Senior.

Baboo Krishna Nath Roy, Munsif of Magoorah, Jessore, is appointed temporarily to be a Munsif of the first grade, *vice* Moulvie Abdul Kureem, Junior.

Baboo Bmod Behari Mitter, Munsif of Manickgunge, Dacca, is appointed temporarily to be a Munsif of the second grade, *vice* Baboo Krishna Nath Roy.

Baboo Mohendra Nath Dass, Munsif of Manickgunge, Dacca, is appointed temporarily to be a Munsif of the third grade, *vice* Baboo Bmod Behari Mitter.

Baboo Prayag Nath, Officiating Munsif of Palamow, Lohardugga, is appointed temporarily to be a Munsif of the fourth grade, *vice* Baboo Mohendra Nath Dass, and to be ordinarily stationed at Palamow.

Baboo Jogendra Nath Ghose, B.A., B.L., is appointed to act, until further orders, as a Munsif in the district of Midnapore, and to be ordinarily stationed at Ghattal.

Baboo Saroda Prosad Chatterjee, Munsif of Kurigram, Rungpore, is vested temporarily with the powers of a Judge of a Court of Small Causes for the trial of suits cognizable by such a Court up to the value of Rs. 50.

Baboo Rajendra Nath Dutta, B.L., is appointed to act as a Munsif in the district of Rungpore, and to be ordinarily stationed at Kurigram, during the absence, on leave, of Baboo Prosunho Kumar Bose, or until further orders.

GRANT OF LEAVE TO MUNSIFS.—*The 19th June 1883.*—Baboo Debendro Lall Shome, B.L., Munsif of Puri, in the district of Cuttack, is allowed leave for two months, under sections 127 and 139, chapter X of the Civil Leave Code, in extension of the leave, for two months, granted to him on the 24th April 1883.

The 21st June 1883.—Baboo Bipradas Chatterjee, B.L., late Munsif of Jungipore, in the district of Moorshedabad, on transfer to Brahmunberiah, in Tipperah, is allowed leave for two months, under rule 2, section 72, chapter V of the Civil Leave Code, with effect from the date on which he may avail himself of it.

The 22nd June 1883.—Baboo Chundra Nath Ghose, B.L., Third Munsif of Burisal, in the district of Backergunge, is allowed leave for seven days, under rule 1 (a), section 72, chapter V of the Civil Leave Code, in extension of the leave granted to him on the 16th May 1883.

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

[First Publication.]

NOTIFICATION.

The 25th June 1883.—It is hereby notified, under the provisions of section 15 of Act V of 1861, that the villages of—

- | | |
|-----------------|----------------|
| 1. Madartoli, | 6. Koroitolla, |
| 2. Hugolpatti, | 7. Lemooa, |
| 3. Kataltoli, | 8. Putimara, |
| 4. Betmore, | 9. Jamritolla, |
| 5. Charackhola, | 10. Golbonia, |

in the Perozpur sub-division, in the district of Backergunge, being in a disturbed and dangerous state, owing to the existence of disputes regarding the possession of lands and collection of rents, the Lieutenant-Governor has sanctioned the retention of a special police force of one head constable and four constables for a further period of one year, commencing from the 1st July 1883, to be quartered upon the said ten villages for the purpose of preserving the peace.

2. The total cost of the force, which is shown below, will be assessed and levied from the inhabitants of the villages in proportion to their respective means—

				Rs.	A.	P.
1 Head Constable at Rs 25	...	...	...	25	0	0
4 Constables at Rs. 9 each	...	...	...	36	0	0
Total monthly cost				61	0	0
For twelve months	...	...	...	732	0	0
Contingencies at 10 per cent	...	...	...	73	3	0
Pensionary charges	...	...	...	91	8	0
Clothing charges	...	...	...	20	0	0
Repair of barracks	...	...	...	50	0	0
Boat establishment for four months from July to October...	...	...	...	140	0	0
Total cost				1,106	11	0

F. B. PEACOCK,
Secretary to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT,—BENGAL.

The 25th June 1883.

No. 234.—Notification.—Mr. E. C. Elliot, Assistant Engineer, second grade, Dacca and Mymensingh State Railway, passed the lower standard examination in Hindustani on the 4th, and the departmental standard examination on the 13th September 1882.

No. 235.—Leave.—Mr. R. C. Dyson, Assistant Engineer, second grade, Dacca and Mymensingh State Railway, is granted three months' leave to study the native languages, from the 1st July 1883.

No. 236.—Mr. E. J. Alexander, Assistant Engineer, second grade, Chittagong Railway Surveys, is granted three months' leave to study the native languages, with effect from 1st proximo.

No. 237.—Lieutenant H. G. Kuschardt, B.E., Executive Engineer, third grade, supernumerary, employed under Raj Durbhunga, is granted three months' privilege leave, from the 17th July 1883, or such date as he may avail himself of it.

IRRIGATION.

Dated 25th June 1883.

No. 238.—Declaration.—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for Itaree distributary taking off from the Buxar Canal, it is hereby declared that for the above purpose a strip of land measuring about 3 miles in length, and varying from 120 to 200 feet in width, and containing an area of 50 acres 3 roods and 26 poles, more or less, and passing through mouzahs Kheksi, Basawaon, Khanta, Jalwassi, and Itaree, in pergunnah Bhojepore, is required in the district of Shahabad.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

No. 239.—Declaration.—Whereas it appears to the Lieutenant-Governor of Bengal that land is required to be taken by Government at the public expense for a public purpose, viz. for branch C of No. 1 distributary extension of the High Level Canal, Range No. I, it is hereby declared that for the above purpose a piece of land 1 mile in length, and averaging in width 33 feet, measuring 16 acres 4 poles, more or less, of standard measurement, which, commencing at mouzah Baradebil, pergunnah Keraulkhand, and passing through mouzahs Sanadebil, Nahafa, Kaitha, Haripur, Benapur, Gopinathpur, Mungrajpur, Sabo, and terminates at mouzah Rambhadeipur, killa Darpon, in the district of Cuttack, is required within the aforesaid villages.

This declaration is made, under the provisions of section 6 of Act X of 1870, to all whom it may concern.

G. F. E. S. NEILL, Major, M.S.C.,
Under-Secy. to the Govt. of Bengal, P. W. D.

[Second Publication]

IRRIGATION.

Draft of the Revised Water-rate Rules for the Orissa Canals.

The 18th June 1883.

No. 233.—Notification.—In exercise of the powers conferred on him by section 99 of Act III (B.C.) of 1876, the Hon'ble the Lieutenant-Governor is pleased to direct the publication of the following revised rules proposed to be passed in supersession of rules 5 and 31 passed under Notification No. 105 of the 26th July 1880, and published in the *Calcutta Gazette* for the 28th July 1880, Part I, pages 643 to 651.

RULE 5.—The rates chargeable per acre for the different descriptions of crops have been fixed up to the 1st of April 1883, and are as follows:—

	Flow.			Lift.		
	Rs.	A.	P.	Rs.	A.	P.
<i>For the rice crop.</i>						
I.—For the whole irrigable or rice cultivated area of any village if applied for up to the expiration of sanctioned rates	1	8	0	1	0	0
II.—For any fractional area of a village or for other term	3	0	0	2	0	0
<i>For cold-weather crops.</i>						
III.—Dalwa rice	1	8	0	1	0	0
IV.—For cotton, tobacco, huldi, ginger, wheat, vegetables, indigo, and all garden produce grown in villages, the rice lands of which are leased under rate I	1	0	0	0	10	0
V.—For the above produce when grown in villages the rice lands of which are not leased under rate I	2	0	0	1	8	0
VI.—For linseed, oilseed, dal, and all pulses grown in villages, the rice lands of which are leased under rate I	0	8	0	0	5	0
VII.—For the above produce when grown in villages, the rice lands of which are not leased under rate I	1	0	0	0	10	0
<i>For perennial crops.</i>						
VIII.—For sugarcane	6	0	0	4	0	0
IX.—The charge for filling tanks will be Re. 1 per 10,000 cubic feet of water used.						

RULE 31.—The dates of payment of water-rates shall be as follows:—

For rice	1st instalment	Two-thirds of the water-rate	1st January.
Ditto	2nd ditto	One-third ditto	1st May.
Sugarcane	.....	.....	1st June.
Dalwa rice and cold-weather crops	.....	.....	1st August.

N.B.—The Lieutenant-Governor reserves the right of withdrawing the permission to pay water-rates on rice in two instalments, and of requiring payment in one instalment, payable on such date as he may fix, should an alteration in this respect be at any time considered desirable.

J. M. HAYWOOD, Lieut.-Col., R.E.,
Joint-Secy. to the Govt. of Bengal, P. W. Dept.

Sheriff's Office, the 27th June 1883.

Notice is hereby given that the Fourth Criminal Sessions of the year 1883 of the High Court of Judicature at Fort William in Bengal, for the Town of Calcutta and Factory of Fort William, and the places subordinate thereto, will be holden at the Court House, in the Town of Calcutta, on Monday, the Thirtieth day of July next, at 11 o'clock in the forenoon, and so on from day to day until the said Sessions be over. And it is hereby proclaimed that all persons who will prosecute any of the prisoners to be brought up for trial at the said Sessions be present then and there to prosecute.

SYAD ASGHAR ALLY, *Sheriff.*

শরীফ অফিস সন ১৮৮৩ সাল তারিখ ২৭শে জুন।

সকলকে সমাচার দেওয়া যাইতেছে যে সবে বাঙ্গালার কোর্ট উইলিয়ম গর্গের অধীন শহর কলিকাতার ও অন্যান্য স্থানের কোর্টদারী বিচার নিষ্পত্তি জন্য আগামী সন ১৮৮৩ সালের ৩০শ, জুলাই সোমবার বেলা ১১ ঘটিকার সময় এবং যে পর্যন্ত সেশিয়ানের কার্য শেষ না হয় প্রতিদিন উক্ত সময়ে কলিকাতার হাই কোর্টের আপন আদালত ঘরে সন ১৮৮৩ সালের চতুর্থ ক্রিমিনেল সেশিয়ান বসিবেক এবং এতদ্বারা প্রচার করা যাইতেছে যে, যে সকল ব্যক্তি কোন কয়েদির বিরুদ্ধে কোর্টদারী মিছিল করিবেক তাহারা উক্ত স্থানে উক্ত সময়ে তাহির থাকিয়া যোকদ্দমা করে ইতি।

সাঁএদ অসগর আলী শরীফ।

SMALL CAUSE COURT NOTICE.

UNDER section 14, Act XI of 1865, notice is hereby given that, subject to the orders of Government, the Judge of the Courts of Small Causes at Kooshtea, Meherpur, and Chooadanga will hold sittings in the month of July 1883 as mentioned below, exclusive of Sundays and holidays:—

From 1st	to 15th July	..	..	..	Kooshtea.
	16th	..	..	..	Chooadanga.
..	17th to 22nd	..	..	..	Meherpur.
..	23rd to 27th	..	..	..	Chooadanga.
..	28th to 31st	..	..	..	Kooshtea.

JADOO NATH ROY, *Judge.*

EDUCATIONAL NOTICES.

Subordinate Educational Service.

The 11th June 1883.—Baboo Raj Kumar Das, Sub-Inspector of Schools, Furreadpore (class VII), is allowed leave of absence for a month, under section 136, chapter X of the Civil Leave Code, with effect from the 15th May last, or any subsequent date on which he availed himself of it.

The 19th June 1883.—Moulvi Tasadaq Hosain, Second Moulvi, Arabic Department, Dacca Madrassah (class VII), is allowed leave of absence for a week, without pay, with effect from the 4th June 1883.

The 22nd June 1883.—Baboo Surendra Kumar Bose, B.C.E., Assistant Teacher of Surveying, Government Engineering College, Seebpore (class VI), is allowed leave of absence for nineteen days, without pay, in extension of the leave granted to him under the orders of the 8th December 1882.

Baboo Kalika Nanda Mookerjee, Sub-Inspector of Schools, Singbhoom (class VII), is allowed leave of absence for a month and fifteen days, under section 136, chapter X of the Civil Leave Code, with effect from the 15th May last.

G. BELLETT, *Offg. Director of Public Instruction.*

In the list of successful candidates for the Mookhtarship examination published in the *Calcutta Gazette* of the 4th April 1883, for No. 370, Modhu Sudun Bhumid, read No. 370, Modhu Sudun Bhuya.

HENRY T. HYDE,

Secy. to the Board of Examrs. for Pledership and Mookhtarship.

List of Candidates who have passed the Examination for Sanskrit Titles held in April 1883 in accordance with the Resolution of Government dated 30th June 1878, together with the Titles and Rewards conferred on them.

No.	Names of candidates in order of merit.	Titles conferred.	Government rewards to pupils.	Private rewards to pupils.	Names of teachers.	Place of instruction.	Government rewards to teachers.	Private rewards to teachers.
			Rs.				Rs.	
SANSKRIT OR SANSKRIT LITERATURE.								
1	Baradakanta Bhattacharjya	Vidyānāṅkar	.....	Jagomohan Mukerji prize of Rs. 50, and Raja Krishna Nath Ray Bahadur scholarship of Rs. 5 a month.	Taraprasanna Vidyaratna	Sanskrit tol, Mula-jor.	.....	Rajkrisna Ray stipend of Rs. 60.
2	Nivaran Bhattacharjya	Vidyaratna	.....	.....	Jayaram Nyaya Bhushan	Bhatpara	50	.....
3	Sarsach Chandra Acharya	Kavyaratna	.....	.....	Yadu Nath Vidyaratna	Purasthali	100	.....
4	Bhudev Bhattacharjya	Kavyaratna	.....	.....	Gopal Chandra Chudamani	Asakbalhola	.....	.....
5	Dhiranand Chakravarti	Kavyaratna	.....	.....	Agha Nath Patwardhi	Burdwan	.....	.....
6	Raghu Nathprasad Tripathi	Vidyaratna	.....	.....	Nana	.....	.....	.....
7	Prasanna Kumara Bhattacharjya	Vidyaratna	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
8	Mahendra Nath Bhattacharjya	Kavyaratna	.....	.....	Amritamaya Vidyaratna	Bhatpara	.....	.....
9	Akshaya Narayan Bhattacharjya	Kavyabhushan	.....	.....	Dwarkanath Nyaya Bhushan	Svadighi	.....	.....
10	Prakash Chandra Bhattacharjya	Vidyānāṅkar	.....	.....	Chandra Kumara Tarkaratna	Subilpur	.....	.....
11	Kedareswar Bhattacharjya	Vidyaratna	.....	.....	Chandra Kanta Tarkalankar	Town Sherpur	.....	.....
12	Mahendra Nath Bhattacharjya	Vidyānāṅkar	.....	.....	Kali Kumar Kavikantabha	Kerang	.....	.....
13	Ananta Nath	Vidyabhushan	.....	Gourishyam scholarship of Rs. 40.	Kasi Nath Vidyaratna	Dhenkanal School	.....	.....
14	Kaliprasanna Bhattacharjya	Kavyakantabha	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
15	Purna Chandra Bhattacharjya	Kavyabhushan	.....	.....	Jayaram Nyaya Bhushan	Bhatpara	.....	.....
16	Chandi Bhushan Bhattacharjya	Kavyaratna	.....	.....	Yadunath Vidyaratna	Purasthali	.....	.....
17	Dinabandhu Das	Kavyabhushan	.....	Raja Svamananda De scholarship of Rs. 30.	Kasinath Vidyaratna	Dhenkanal School	.....	.....
SMRITI OR HINDU LAW (MODERN.)								
1	Durgaprasanna Bhattacharjya	Smritiratna	50	Prasanna Kumara Tagore scholarship of Rs. 8 a month.	Rajani Kanta Vidyaratna	Sanskrit tol, Mula-jor.	200	.....
2	Girish Chandra Bhattacharjya	Smritibhushan	25	Raja Lok Nath Ray Bahadur scholarship of Rs. 7 a month.	Sasibhushan Smritiratna	Rajrajgani	.....	Kshetramani Devya stipend of Rs. 60.
3	Jagadish Bhattacharjya	Smritikantabha	.....	Parvati Devi prize of Rs. 50.	Tarini Charan Siromani	Bhojeshwar	100	.....
4	Kalikesor Bhattacharjya	Smritiratna	.....	Narayan Acharya Chaudhuri prize of Rs. 50.	Jagach Chandra Sarvabhoam	Fursail	50	.....
5	Sasibhushan Bhattacharjya	Smritibhushan	.....	Burdwan scholarship of Rs. 50.	Rajani Kanta Vidyaratna	Sanskrit tol, Mula-jor.	.....	.....
6	Ditto	Smritiratna	25	.....	Tarini Charan Siromani	Bhojeshwar	.....	.....
7	Chandrakanta Bhattacharjya	Smritikantabha	25	.....	Jagach Chandra Sarvabhoam	Fursail	.....	.....
8	Yogindra Nath Bhattacharjya	Smritibhushan	25	.....	Madhusudan Smritiratna	Calcutta	50	.....
9	Umes Chandra Bhattacharjya	Smritisromani	25	Silver medal of Mahendra Nath Mitra.	Krishna Nath Nyayapanchanan	Purasthali	200	.....
10	Krishnaraman Goswami	Smritipanchanan	25	.....	Kali Charan Tarkalankar	Vikramporo	.....	Burdwan prize of Rs. 60.
11	Radha Govinda Bhattacharjya	Smritichudamani	.....	Durbhanga prize of Rs. 20.	Dina Nath Nyayapanchanan	Janadanga	.....	.....
12	Rajani Kanta Chatterji	Smritibhushan	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
13	Bhevadev Bhattacharjya	Smritipanchanan	.....	.....	Taragati Tarkalankar	Vaidyabati	.....	.....
14	Akshaya Kumar Bhattacharjya	Smritikantabha	.....	.....	Professor, Sanskrit College, Calcutta.	Sanskrit College, Calcutta.	.....	.....
15	Mukunda Chandra Bhattacharjya	Smritiratna	.....	.....	Rajani Kanta Vidyaratna	Sanskrit Tol, Mula-jor.	.....	.....
16	Sital Chandra Bhattacharjya	Smritichudamani	.....	.....	Krishna Nath Nyayapanchanan	Purasthali	.....	.....
17	Bharatikanta Bhattacharjya	Smritibhushan	.....	.....	Rajani Kanta Vidyaratna	Sanskrit tol, Mula-jor.	.....	.....
18	Jagach Chandra Bhattacharjya	Smritipanchanan	.....	.....	Gorudas Siddhantabagosa	Muktogachha	.....	.....
19	Uma Nath Bhattacharjya	Smritisromani	.....	.....	Krishna Nath Nyayapanchanan	Purasthali	.....	.....
20	Hari Nath Bhattacharjya	Smritikantabha	.....	.....	Ditto	Ditto	.....	.....
21	Sphatik Chandra Bhattacharjya	Smritiratna	.....	.....	Ditto	Ditto	.....	.....
22	Bakkeswar Bhattacharjya	Smritichudamani	.....	.....	Ditto	Ditto	.....	.....
23	Goursunder Bhattacharjya	Smritiratna	.....	.....	Navakishor Tarka Chudamani.	Katibali	.....	.....
DARSANA OR HINDU PHILOSOPHY—(A) HINDU LOGIC.								
	Rajani Kumara Banerji	Tarkaratna	50	Harakumar Tagore gold keyur, Dewan Krishna Kanta Bahadur scholarship of Rs. 8 a month.	Hari Nath Tarkasiddhanta	Sanskrit tol, Mula-jor.	50	.....
2	Asatoosh Bhattacharjya	Tarkabhushan	.....	Raja Hari Nath Ray Bahadur scholarship of Rs. 8 a month.	Ramdhan Tarkapanchanan	Karakdi	.....	.....
	Narayananda Bhattacharjya	Tarkaratna	.....	.....	Hari Nath Tarkasiddhanta	Sanskrit tol, Mula-jor.	.....	.....
(C)—VEDANTA PHILOSOPHY.								
1	Hari Nath Bhattacharjya	Vidantabagisa	.....	Parvati Devi prize of Rs. 50.	Subrahmanya Nastri	Benares	.....	Burdwan prize of Rs. 50.
(D)—SANKHYA PHILOSOPHY.								
	Ramtanu Bhattacharjya	Sankhyachudamani	100	Durbhanga scholarship of Rs. 15 a month, Jagomohan Mukerji prize of Rs. 50.	Chandra Kanta Tarkalankar	Town Sherpur	.....	Rajkrisna Ray stipend of Rs. 60.
	Purna Chandra Bhattacharjya	Sankhyabhushan	100	Burdwan scholarship of Rs. 50.	Kailas Chandra Siromani	Benares	50	.....

MOHESCHANDRA NYAYARATNA,
Offg. Principal, Sanskrit College.

Department Public Works Half-yearly Examination.

THE half-yearly examination of candidates for promotion and employment in the Public Works Department will be held at the Government Engineering College, Howrah, at 10 o'clock on Monday, the 6th August 1883, and the following days. Applications, with fees, for admission to the examination are required to be filed before the 15th of July 1883. Candidates for the grade of accountant, who are not in Government service, should be under 25 years of age, and must prove to the satisfaction of the Principal that they are under that age.

The following are the centres of Examination sanctioned by the Government of India as stations where candidates for fourth grade accountantships are to appear for examination:—

Ajmere, Allahabad, Durbhunga, Ghadechi, Howrah, Indore, Lahore, Lucknow, Mount Abu, Nagpore, Poona, Rangoon, Rawal Pindi, Saidpore, Secunderabad, Sukkur, Simla, and Shillong.

Candidates for the Accountant's examination are therefore requested to select one of the places mentioned above.

S. F. DOWNING,

Principal, Government Engineering College, Howrah.

SHIBPORE, the 18th June 1883.

NOTIFICATION OF THE BOARD OF REVENUE.

No. 627B.

NOTICE is hereby given that the Seventh Sale of Opium, the provision of 1881-82, will be held at the Government Opium Sale-room, No. 2, Bankshall-street, on Tuesday, the 3rd July 1883, at 11 A.M., and will comprise 4,700 chests, viz:—

	Chests.
Opium manufactured at the Patna Factory, consisting of 75° consistence ..	2,350
Do. do. do. Ghazipore Factory, consisting of 72° consistence ..	2,350
Total ..	4,700

2. The general conditions of the sale now advertised will be the same as usual. They may be ascertained by reference to the Notification issued on the 28th November 1882, and published in the *Government and Exchange Gazettes*, or on personal application at the office of the Board of Revenue.

3. The latest dates for deposit and clearance will be the 9th and 18th July 1883, respectively—that is to say, no Bank of Bengal Receipts, Government Promissory Notes, or other public securities that may be tendered for deposit in redemption of Promissory Notes given by purchasers in the sale-room will be received after 3-30 P.M. of Monday, the 9th July 1883, and no Bank of Bengal Receipts in full payment of lots will be accepted after 3-30 P.M. of Wednesday, the 18th July 1883.

4. Including the quantity above advertised for sale, the following quantities, more or less, of the Opium manufactured at the Patna and Ghazipore Factories will be brought to sale up to March 1884 about the dates specified below. The Board of Revenue, however, reserve to themselves the right of altering these dates should circumstances render it expedient to do so:—

DATE				Manufactured at the Patna Factory, about chests.	Manufactured at the Ghazipore Factory, about chests.	Total, about chests.
On or about Tuesday,	3rd July	1883	...	2,350	2,350	4,700
Do. about Thursday,	2nd August	"	...	2,225	2,225	4,450
Do. about Monday,	3rd September	"	...	2,225	2,225	4,450
Do. about Wednesday,	26th	"	...	2,225	2,225	4,450
Do. about Thursday,	1st November	"	...	2,225	2,225	4,450
Do. about Monday,	3rd December	"	...	2,225	2,225	4,450
Early in January	1884	...	...	The number of chests of each kind to be sold each month will be advertised hereafter.		4,450
Do. February	"	...	...			4,450
Do. March	"	...	...			4,450
Total				.....	.....	40,300

By order of the Board of Revenue, L.P.,

C. E. BUCKLAND, *Offg. Secretary.*

BOARD OF REVENUE, L.P., FORT WILLIAM, the 29th May 1883.

No. 736B.

Notice is hereby given that the Eighth Sale of Opium, the Provision of 1881-82, will be held at the Government Opium Sale-room, No. 2, Bankshall-street, on Thursday, the 2nd August 1883, at 11 A.M., and will comprise 4,450 chests, viz:—

	Chests.
Opium manufactured at the Patna Factory, consisting of 219 lots and four chests of 75° consistence and 225 lots and one chest of 76° consistence	2,225
Opium manufactured at the Ghazipore Factory, consisting of 415 lots of 72° consistence	2,225
Total	4,450

2nd. The general conditions of the sale now advertised will be the same as usual. They may be ascertained by reference to the Notification issued on the 28th November 1882, and published in the *Government and Exchange Gazettes*, or on personal application at the Office of the Board of Revenue.

3rd. The latest dates for deposit and clearance will be the 7th and 17th August 1883, respectively, that is to say, no Bank of Bengal Receipts, Government Promissory Notes, or other public securities that may be tendered for deposit in redemption of Promissory Notes given by purchasers in the Sale-room will be received after 3-30 P.M. of Tuesday, the 7th August 1883, and no Bank of Bengal Receipts in full payment of lots will be accepted after 3-30 P.M. of Friday, the 17th August 1883.

4th. In addition to the quantity above advertised for sale, the following quantities, more or less, of the opium manufactured at the Patna and Ghazipore Factories will be brought to sale in the present year, about the dates specified below. The Board of Revenue, however, reserve to themselves the right of altering these dates, should circumstances render it expedient to do so.

DATES.	Manufactured at the Patna Factory, about chests.	Manufactured at the Ghazipore Factory, about chests.	Total, about chests.
On or about Thursday, 2nd August 1883 ..	2,225	2,225	4,450
" Monday, 3rd September ..	2,225	2,225	4,450
" Wednesday, 26th " ..	2,225	2,225	4,450
" Thursday, 1st November ..	2,225	2,225	4,450
" Monday, 3rd December ..	2,225	2,225	4,450
Early in January 1884 ..	2,000	2,450	4,450
" February " ..	2,000	2,450	4,450
" March " ..	2,000	2,450	4,450
Total ...	17,125	18,475	35,600

By order of the Board of Revenue, L. P.,

C. E. BUCKLAND, *Offg. Secretary.*

BOARD OF REVENUE, L.P., FORT WILLIAM, the 26th June 1883.

No. 6874B.

With reference to the provision contained in clause C, section 51 of the Indian Stamp

• STAMPS.
H. A. Cockerell, Esq., C.S.I.

Act, I of 1879, which requires that, in the event of the impressed stamp used for any bill-of-exchange, &c., signed by the drawer thereof being spoiled or rendered useless in consequence of any error or omission, another completed or duly stamped bill-of-exchange shall be produced identical in every particular with the spoiled bill, except in the correction of such error or omission, before allowance can be made for the stamps spoiled: it is hereby notified for the information of the public that the Governor-General in Council has authorized the Collector of Stamp Revenue, Calcutta, to renew the stamps used for bills-of-exchange, which have become spoiled in consequence of mistake or error in drawing out the document, after the Collector has satisfied himself by evidence that a fresh set of bills-of-exchange has been executed in each case, and that application for such renewal has been made within ten working days from the date of the bill-of-exchange in respect of which the renewal of the stamp was required.

By order of the Board of Revenue, L.P.,

C. E. BUCKLAND, *Offg. Secretary.*

BOARD OF REVENUE, FORT WILLIAM, the 12th June 1883.

NOTIFICATION.

IN continuation of the notification published in part I, page 546 of the *Calcutta Gazette* of the 21st June 1882, the Board, under the powers vested in them by section 17A of the Bengal Excise Act, IV (B.C.) of 1881, hereby declare, with the sanction of the local Government, that the possession, without a license from the Collector or other duly authorized officer, of any foreign excisable article (except spirituous and fermented liquors imported by sea and kept only for private use and consumption, and not for sale) is absolutely prohibited within the districts of Noakholly and Hooghly.

By order of the Board of Revenue, L. P.,

C. E. BUCKLAND, *Offg. Secretary.*

CALCUTTA, the 19th June 1883.

Statement showing the Importation of Salt (Private Property) in Bond and Afloat on the River Hooghly subject to Customs Duty on the 15th June 1883.

	Government golabs.	Private golabs.	Afloat.	Total.
	Mds.	Mds.	Mds.	Mds.
Liverpool Punganh	2,50,749	.....	4,26,873	6,77,622
Arabian and Persian Gulfs Kur- kutch and Muscat Rock	41,139	.....	4,589	45,728
Bombay Kurkutch ... ..	.....	.....	6,196	6,196
Total	2 91,888	.....	4,37,658	7,29,546

By order of the Board of Revenue, L.P.,

J. ARMSTRONG, *Collector of Customs.*

CALCUTTA CUSTOM HOUSE, the 22nd June 1883.



The Calcutta Gazette.

WEDNESDAY, JANUARY 3, 1883.

PART I A.

Orders and Notifications by the Government of India, &c. [Reprinted from the Gazette of India.]

The following order, issued by the Government of India in the Home Department, is republished for general information :—

NOTIFICATION—ECCLIASTICAL.

Fort William, the 23rd December 1882.

No. 245.—The services of the Reverend W. Ulyat, B.A., a Junior Chaplain on the Bengal Establishment, are placed at the disposal of the Government of Bengal.

The following order, issued by the Government of India in the Military Department, is republished for general information :—

FURLOUGH AND LEAVE.

Fort William, the 29th December 1882.

No. 711.—The undermentioned officer is granted, furlough out of India, with the necessary subsidiary leave :—

* * * * *
Captain A. E. Gordon, Bengal S.C., Assistant Commissioner, first grade, Officiating Deputy Commissioner, third grade, Bengal, (m.c.) for one year, under Rule XIV, clause 1, of the Regulations of 1868.
* * * * *

INDIAN EMPIRE.

NOTIFICATION.

Fort William, the 1st January 1883.

No. 471.E.—Her Majesty the Queen and Empress of India has been pleased to appoint the undermentioned gentlemen who, by their services, have merited the Royal favour, to be Companions of the Order of the Indian Empire :—

* * * * *
Dr. Mohendro Lal Sirkar, Presidency Magistrate, Calcutta.
Nawab Abdul Latif, Deputy Magistrate, Sealdah, 24-Pergunnahs.
* * * * *

FOREIGN DEPARTMENT.

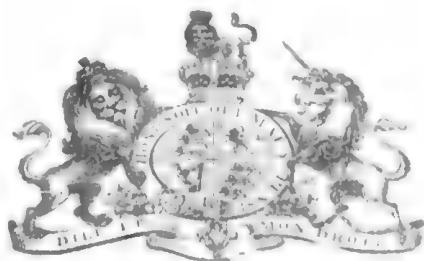
NOTIFICATION—POLITICAL.

Fort William, the 1st January 1883.

No. 1660G.—His Excellency the Viceroy and Governor-General is pleased to confer upon Kabir-ud-din Ahmad, Chief Maulvi to the Board of Examiners, Calcutta, the title of "Khan Bahadur," as a personal distinction.

No. 1663G.—His Excellency the Viceroy and Governor-General is pleased to confer upon Maulvi Khuda Bakhsh, Government Pleader at Patna, the title of "Khan Bahadur," as a personal distinction.

F. B. PEACOCK,
Offg. Secretary to the Govt. of Bengal.



The Calcutta Gazette.

WEDNESDAY, JANUARY 10, 1883.

PART I A.

Orders and Notifications by the Government of India, &c.

[Reprinted from the Gazette of India.]

The following order, issued by the Government of India in the Home Department, is republished for general information :—

NOTIFICATIONS—ESTABLISHMENTS.

Fort William, the 14th January 1883.

No. 3.—The Honorable G. G. Morris, a Judge of the High Court of Judicature at Fort William in Bengal, has been permitted to resign Her Majesty's Bengal Civil Service, with effect from the 17th November 1882

The 5th January 1883.

No. 7.—Mr. W. E. Ward, C.S., M.A., Judge and Commissioner of the Assam Valley Districts, is appointed to officiate temporarily as Judicial Commissioner of the Central Provinces during the absence on deputation of Mr. R. J. Crosthwaite, C.S., B.A., or until further orders.

The following orders, issued by the Government of India, in the Foreign Department, is republished for general information :—

GENERAL.

Fort William, the 30th December 1882.

No. 1650G.—The services of Mr. H. H. Birch, who was temporarily employed as guardian to the Maharaja of Kolhapur, are replaced at the disposal of the Government of Bengal.

The following orders, issued by the Government of India in the Department of Finance and Commerce, are republished for general information :—

NOTIFICATIONS.

Fort William, the 5th January 1883.

No. 57.

In exercise of the powers conferred by section 16 of the Indian Coinage

Financial Resolution No. 3299, dated 4th October 1872, and Notification of the same date.

Financial Notification No. 1909, dated 29th March 1877.

Financial Resolution No. 3356, dated 1st November 1880.

Financial Notification No. 2849, dated 25th November 1882.

Act, 1870, and in supersession of the orders noted on the margin, the Governor General in Council is pleased to author-

ise the undermentioned officers to cut or break coin under that section :—

1. Every officer in charge of a District Treasury.
2. Every Assistant Collector, Deputy Collector, Assistant Commissioner, or Extra Assistant Commissioner in charge of a Sub-Treasury.

3. Every Commissioner, Deputy or Assistant Commissioner of the Department of Paper Currency.
4. The Mint Masters, Calcutta and Bombay.
5. The Secretary and Treasurer of each of the Presidency Banks, and every Agent in charge of a branch of any of the said Banks.
6. The Secretary, Manager, or other principal officer of the several offices and agencies in India of each of the following Banks:—
Agra Bank, Limited; Chartered Mercantile Bank; Chartered Bank of India; Comptoir D'Escompte de Paris; Delhi and London Bank, Limited; National Bank of India, Limited; Oriental Bank Corporation; Alliance Bank of Simla, Limited; Simla Bank Corporation, Limited.
7. The Chairman, Vice-Chairman, or the Secretary of the Calcutta Port Improvement Commissioners, Bombay Port Trustees, Rangoon Port Commissioners.
8. The Chairman, Vice-Chairman, President, Vice-President, or Secretary of the Presidency Municipalities.
9. And any officer of any other Municipality authorised by the Local Government or Administration.

And in exercise of the powers conferred by section 28 of the same Act, the Governor General in Council is pleased to prescribe the following rules:—

1. When any silver coin purporting to be coined and issued under the authority of the Government of India is tendered to any of the officers authorised by this Notification to act under section

Extract from Act No. XXIII of 1870—India.

*16. When any silver coin purporting to be coined and issued under the authority of the Government of India is tendered to any officer authorised by the Governor General in Council or the Local Government to act under this section, who has reason to believe it to have lost, by reasonable wearing, more than two per cent. in weight, or to be counterfeit, or to have been reduced in weight otherwise than by reasonable wearing, or to be called in by any proclamation, he may, by himself or another, (subject to the rules which the Governor General in Council prescribes in this behalf), cut or break such coin.

16* of the Indian Coinage Act, 1870, who has reason to believe it to be counterfeit, or to have been reduced in weight otherwise than by reasonable wearing, he shall cut or break such coin, and, under section 16 of the said Act, return the pieces to the person tendering the coin. In cutting or breaking coins, officers

should avoid completely dividing them, as it is often convenient to identify the parts of a particular coin. Such identification becomes impossible if the pieces are wholly separated. Care should, however, be taken that the destruction is complete.

2. When any rupee or half-rupee purporting to be coined and issued under the authority of the Government of India is tendered to any such officer, who has reason to believe it to have lost by reasonable wearing more than two per cent. in weight, he shall cut or break such coin, and, at the option of the person tendering the coin, return to him the pieces, or retain them and give credit for them at the rate of one rupee for one hundred and eighty grains troy weight.

3. A quarter-rupee or an eighth of a rupee tendered to such an officer

Extract from Act No. XXIII of 1870—India.

† 13. The said rupee and half-rupee shall be a legal tender in payment or on account:

Rupee and half-rupees a legal tender.
Provided that the coin has not lost more than two per cent. in weight: Provided also that it has not been clipped or filed, or defaced or diminished, otherwise than by use.

The quarter-rupee and eighth of a rupee shall be legal tender only for the fractions of a rupee, subject to the second proviso contained in this section.

must, under section 13† of the Act, be accepted as legal tender for a fraction of a rupee, even though it have lost, by reasonable wearing, more than two per cent. in weight.

4. If, by reason of the obliteration of the device upon it, or for any other cause, any quarter-rupee or eighth of a rupee coined and issued after the 1st September 1835 that shall come into the possession of such an officer, shall appear to him to be unfit for further circulation, it shall not be cut or broken, but shall, whatever be its weight, be withdrawn from circulation and dealt with in the manner prescribed in Rules 5 and 6. But quarter-rupees and eighths of a rupee shall not be withdrawn from circulation, if they appear to be otherwise fit to circulate, only because they have lost by reasonable wearing more than two per cent. in weight. Such coins, if coined and issued before 1st September 1835, must, however, be dealt with under section 16 of the Act.
5. In the case of coin tendered to officers of Government, the pieces of coin cut or broken and received under Rule 2, and the coin withdrawn from circulation under Rule 4, shall be sent, by the first convenient opportunity, to the Master of the Mint at Bombay or Calcutta or any principal treasury appointed by the local Accountant General to receive them for remittance to the Mint. Meanwhile, the actual amount at which the cut or broken pieces have been received and the nominal value of the coin withdrawn shall be entered in the statement of the cash balance of the officer who has received them as "uncurrent coin." Upon their receipt at the Mint, the Master of the Mint shall give credit for them at the rate mentioned in Rule 2, in the case of coin cut or broken, and at the nominal value in the case of coin withdrawn under Rule 4, and any loss incurred in their re-coinage shall be a charge of the Mint.
6. If the coin be cut or broken and received under these rules by any of the officers enumerated under headings 5 to 9 above, the pieces should be sent to the nearest Government Treasury (and in Presidency Towns to the Reserve Treasury) where the actual sum paid for them and the nominal value of the coin withdrawn shall be paid, and thereafter the pieces will be dealt with in the manner prescribed in Rule 5.

These rules apply to all silver coin of the same weight and value as British Indian Currency, coined by the Government of India on behalf of the Government of Portuguese India, or coined under the Native Coinage Act, IX of 1876, on behalf of Native States. They do not affect the orders contained in the Resolution of the Government of India in the Financial Department, No. 2432, dated 17th August 1881, under which, for the present, all genuine coin which has not been diminished by fraudulent means or has been diminished only by what are ordinarily known as shroff marks, shall be received at its nominal value; accordingly, in so far as regards such coin, the second rule of those now prescribed is suspended, except that coin which has been reduced more than two per cent. in weight by reasonable wearing shall be cut or broken as heretofore, although it be received at full value.

For testing rupees and half rupees under these rules, minimum weights, 176.4 and 88.2 grains troy respectively, shall be obtainable on application through the Comptroller General or the Accountant General, Bombay, as the case may be, to the Mint Masters at Calcutta and Bombay. These weights being already two per cent. below the standard weight for rupees and half rupees respectively show the exact weight below which the coin has to be destroyed. The weights will be supplied in all cases at Government expense, but as the scales ordinarily used by native jewellers are sufficient for these tests, scales will not be supplied by the Mint Masters.

ORDERED, that this Notification be published in the *Gazette of India* for general information, and that it be communicated to the several Local Governments and Administrations and the Comptroller General for information.

No. 95.

RESOLUTION—By the Government of India, Department of Finance and Commerce.

READ—

- Letter to the Government of Bombay, No. 520, dated 27th January 1882.
 Letter from the Bombay Steam Soap and Candle Works Company, Limited, dated 24th January 1882, and enclosure.
 Letter from the Government of Bombay, No. 815, dated 6th February 1882, and enclosures.
 Circular letter to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab; to the Chief Commissioner of British Burma, and the Commissioner of Northern India Salt Revenue, No. 1049, dated 23rd February 1882.
 Letter from the Government of the Punjab, No. 110, dated 21st March 1882, and enclosure.
 Letter from the Chief Commissioner of British Burma, No. 770-4S.S., dated 21st March 1882.
 Letter from the Government of Bengal, No. 1150-50S., dated 1st May 1882, and enclosures.
 Letter from the Government of Bombay, No. 2923, dated 4th May 1882, and enclosure.
 Letters from the Commissioner of Northern India Salt Revenue, Nos. 73C. and 118C., dated respectively the 26th May and 25th July 1882, and enclosure.
 Letter from the Government of the North-Western Provinces and Oudh, No. 210, dated 12th August 1882, and enclosures.
 Letter from the Government of Madras, No. 934, dated 5th September 1882, and enclosures.

OBSERVATIONS.—In consequence of an application having been received from the Bombay Steam Soap and Candle Works Company, praying for the remission of the duty on the salt used by it in the manufacture of soap, the question of issuing salt, free of duty, for the manufacture of soap and alkali has recently engaged the attention of the Government of India. In the circular letter of the 23rd February 1882, read in the preamble, the Government of India expressed its opinion that the remission of duty on salt used for industrial and agricultural purposes was desirable in itself if it could be allowed without danger to the revenue, and observed that various methods of denaturalising salt had from time to time been suggested, but that hitherto no satisfactory process which exactly met the requirements of the case had been discovered. It was accordingly proposed in view to the issue of duty-free salt to soap manufactories, that a preventive establishment should be placed at the works to see that the free salt is actually mixed with the prepared lye, the cost of the establishment being borne by the manufacturers. It was at the same time suggested that it should be first ascertained, by actual experiment, whether the salt after being mixed with the lye could be separated from it and again rendered fit for human consumption, as, in that case, it would not be a sufficient safeguard to provide an establishment merely to see that the salt was actually mixed with the lye.

2. From the reports received from the Local Governments consulted it appears that salt is used at two stages in the manufacture of soap; first, for supplying the soda which contributes to the formation of the soapy matter, and, secondly, for separating the soap from the lye. In the former case, decomposition takes place, and it would therefore seem to be feasible to arrange for the issue of duty-free salt by simply ensuring the mixture of the salt with the lye in the course of manufacture. In the case of salt used in the process of separation, the Chemical Examiners consulted are unanimously of opinion that it would always be possible to recover the salt from the 'spent lye' remaining after the separation of the soap, but it also appears that the process of extraction would be neither easy nor cheap. As a precaution against such extraction, the Collector of Salt Revenue, Bombay, recommends that all spent lye, or salt charged liquor, leaving the soap-works, should be run to waste, and the Chemical Examiner, Madras, suggests that manufacturers may be required to discharge the spent lye into the sea or a large river or other suitable channel.

3. In Bombay, the Collector of Salt Revenue does not recommend the grant of free salt to the Bombay Steam Soap and Candle Works Company for the manufacture of soap, except on condition that the Company should agree

to allow the spent lye to run to waste, that its premises should be open at all times to the Preventive Officers of the Salt Department, that notice of each boiling should be duly given to those officers, that the Company should use fully taxed salt in the first instance, and that after ascertaining the actual quantity of salt required in the preparation of a given quantity of soap, a refund of the duty should be made to the Company, proportionate to the amount of soap sold as shown by its books and vouchers. The Government of Bombay, however, considers it inexpedient to grant the concession, as in its opinion it would be difficult to prevent loss of revenue from the subsequent illicit use of the salt, unless a preventive establishment is maintained at a strength and cost which would counterbalance any pecuniary gain to be derived by the Company from the use of free salt.

4. In the North-Western Provinces and Oudh, the only factory using salt in the manufacture of soap is the North-West Soap Company at Meerut. In order to avail itself of the privilege of using duty-free salt for soap-making, this Company is willing to give a pecuniary guarantee, to conform to all reasonable requirements of the Salt Department as to the safe custody and issue of the salt, and to allow inspection of its books, &c. but hopes that no expensive preventive establishment will be insisted upon. The Commissioner of Northern India Salt Revenue, on the other hand, considers that a preventive establishment cannot be safely dispensed with. He does not apprehend any danger to the revenue from the separation of salt from the spent lye, but considers that the real risk of loss lies in the fact that a portion of the free salt may never be added to the lye at all, and to guard against this contingency, the location at the works of a preventive establishment is necessary in order to supervise the use of the salt and the disposal of the refuse. The Government of the North-Western Provinces and Oudh thinks that a preventive establishment should not be insisted upon, as the grant of free salt would probably be neutralised by the cost of such establishment and the inconvenience which it would cause to the manufacturers. His Honour the Lieutenant-Governor accordingly suggests that the Commissioner of Northern India Salt Revenue should draw up rules for the safe custody and issue of the salt and for keeping up registers by the manufacturers which should be open at all times for inspection, showing how the salt is disposed of. He also suggests that the Company might further be required to execute a bond in a reasonable amount pledging itself to abide by these rules and to guarantee that all duty-free salt supplied to it should be used *bona fide* in the manufacture of soap and for no other purpose, and power might be reserved in the bond to impose a preventive establishment if there be reason to suppose that the concession is being abused.

5. The Chemical Examiner to the Bengal Government is of opinion that the salt mixed with the lye in the manufacture of soap can afterwards be separated from the lye by repeated re-crystallizations, but that the process would be an expensive one, and could only be profitably carried out on a large scale. The Government of Bengal therefore believes that there would be no danger to the revenue from this source, and that the abuse of the privilege of using duty-free salt might be sufficiently guarded against by the deputation of an officer to the soap-works, whenever required, in order to supervise the mixing of the salt with the lye. It adds that under such an arrangement it would not be necessary to require the manufacturers to pay the cost of a fixed preventive establishment. The Board of Revenue, Lower Provinces, suggests an alternative proposal, *viz.*, that if it can be ascertained approximately what minimum quantity of salt must be used for the manufacture of a certain quantity of soap, an officer might be sent from time to time to examine the outturn of soap manufactured and to note the quantity of salt expended for the purpose, and then a refund of the duty on the recorded quantity of salt might be granted. His Honour the Lieutenant-Governor considers that this procedure might be introduced with advantage if the conditions of soap manufacture admit of a calculation of this nature.

6. The Commissioner of Salt Revenue, Madras, is of opinion that if duty-free salt for the manufacture of soap be issued only to firms of respectability and under adequate guarantees, there should not be any such danger to the revenue as to render it advisable to withhold a concession which might encourage a useful industry. The Board of Revenue, Madras, considers that the

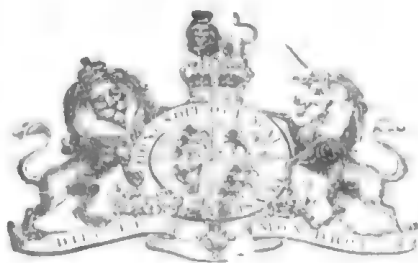
difficulties attending the supply of free salt for the purpose of soap-making are not of such a nature as to be insurmountable, and it proposes that, as a tentative measure, the concession may at first be limited to well-known firms, a preventive establishment being maintained to check illicit practices. The Madras Government approves of this proposal subject to the precaution suggested by the Chemical Examiner, *viz.*, that the manufacturers should be required to discharge the refuse salted lye into the sea, or a river, or other suitable channel, and observes that as the manufacturers must bear the cost of the necessary preventive establishment, the arrangement would be practicable only where the works are conducted on a scale sufficiently large to earn a profit after defraying all incidental charges. It also forwards a letter from Messrs. Arbuthnot & Co., of Madras, applying for the supply of duty-free salt for the manufacture of alkali and suggesting two alternative courses in which the concession might safely be granted, *viz.*, (1) that salt at usual selling rates, *minus* the charge for duty, may be issued to the firm and a trustworthy official retained at the alkali works to see that the salt is not used for any other purpose than that of manufacture, or (2) that the firm may at first buy salt at the ordinary rates inclusive of duty, and afterwards receive a refund or drawback of the duty, on production of a certificate from some Government official retained at the works in order to watch that the specified quantity of salt has been actually employed in the manufacture.

RESOLUTION.—The Governor General in Council observes that the question of the issue of salt, free of duty, to be used in the manufacture of soap and alkali is becoming one of some importance, and on a consideration of the views and proposals set forth in the preceding paragraphs, His Excellency in Council is strongly in favour of an attempt being made to issue duty-free salt for these purposes under proper restrictions and with suitable precautions. His Excellency in Council believes that precautions which will sufficiently protect the revenue can be taken at a moderate cost. Each Local Government is accordingly empowered to make such arrangements as it may deem necessary for the purpose indicated. The arrangements should be made subject to the final decision of the Government of India, to whom they should be reported. In all provinces to which the jurisdiction of the Commissioner of Northern India Salt Revenue extends, the arrangements should be made by the Local Government in communication with the Commissioner. It must be understood that the manufacturer is to bear any extra cost for preventive establishments, &c., which the grant of the concession may necessitate, and that the privilege is liable to be withdrawn if experience shows that it is being abused or that the revenue is suffering.

ORDER.—Ordered, that a copy of the above Resolution be communicated to the several Local Governments and Administrations for information and guidance, and to the Commissioner, Northern India Salt Revenue.

Ordered also, that the Resolution be published in the *Gazette of India*.

F. B. PEACOCK,
Offg. Secretary to the Govt. of Bengal.



The Calcutta Gazette.

WEDNESDAY, JANUARY 17, 1883.

PART I A.

Orders and Notifications by the Government of India. &c.

[Reprinted from the Gazette of India.]

The following orders, issued by the Government of India in the Home Department, are republished for general information :—

NOTIFICATIONS.—MEDICAL.

Fort William, the 10th January 1883.

No. 17. —The services of Surgeon J. Lewtas, Officiating Civil Surgeon of Backergunge, are replaced at the disposal of the Government of the Punjab.

JUDICIAL.

The 6th January 1883.

No. 21.—The Hon'ble A. Wilson, a Judge of the High Court of Judicature at Fort William in Bengal, has obtained furlough for ten months, with effect from the 20th March next, or from any subsequent date on which he may avail himself of it.

The following orders, issued by the Government of India in the Department of Finance and Commerce, are republished for general information :—

NOTIFICATIONS.

Fort William, the 12th January 1883.

No. 227.—In accordance with the Resolution of the Government of India in the Financial Department, No. 59, dated 11th January 1882, notice is hereby given that the original Promissory Notes mentioned on the subjoined list (of which duplicates have been applied for on the allegation that the originals have been lost) will be discharged at the General Treasury of Fort William and in the last six cases at Jubbulpore on 1st June 1883, with all interest due upon them, and that upon that date all further interest upon such Notes shall cease :—

No. of the Note.	Value.	In whose name issued.	From what date the lost Note bears interest †	Claimant for duplicate.	REMARKS.
002614, 4 per cent., 1835-36	500	Nobin Chunder Paul	Sep. 30, 1871	Rohoram Banerjee	Case No. 21
3981—14965, 4 per cent., 1835-36	1,000	Raja Indoo Bhusun Deb Roy.	Mar. 31, 1861	Poorno Chunder Gangooly.	" 19
047000, 4 per cent., 1842-43	1,000	Mohes Chunder Sen	Feb. 1, 1877	Mohes Chander Sen	" 32
047001 " " "	1,000	Ditto	Ditto	"	" 32
047002 " " "	1,000	Ditto	Ditto	"	" 32
047003 " " "	1,000	Ditto	Ditto	"	" 32
*077070 " " "	500	Seetanath Mytee	Feb. 1, 1879	Seetanath Mytee	" 18
000248 } et. 19682 }	1,000	Executive Commissariat Officer, Kussoyli.	Feb. 1, 1866	Jowala Persaud	" 25
10299—17252, 4 per cent., 1854-55.	1,000	Administrator General, Bengal.	June 30, 1868	Sreemutty Bama Soondry Dabee.	" 24
018972, 4 per cent., 1854-55	4,600	Mungamur Nursein Harrow	June 30, 1878	Mungamur Nursein Harrow.	" 26
075629, 4 per cent., 1865	500	Gopal Chunder Sreemany.	Nov. 1, 1875	Nilmoni Ghose	" 26
082266 " " "	1,000	Mohes Chunder Sen	Ditto 1876	Mohes Chunder Sen	" 32
082267 " " "	1,000	Ditto	Ditto	Ditto	" 32
082268 " " "	1,000	Ditto	Ditto	Ditto	" 32
082269 " " "	1,000	Ditto	Ditto	Ditto	" 32
115472 " " "	500	Helen T. Schumacher	Nov. 1, 1879	Helen T. Schumacher	" 16
115473 " " "	500	Ditto	Ditto	Ditto	" 16
115474 " " "	500	Ditto	Ditto	Ditto	" 16
5256 " " "	500	E. E. Petrocchino & Co.	May 1, 1868	S. Bama Soondry Dabee	" 24
000208 " " "	500	Kartick Chunder Bural	Ditto	Ditto	" 24
*027720 " " "	1,000	Chartered Mercantile Bank	Nov. 1, 1877	Lieut.-Col. A. Copland	" 22
*027942 " " "	500	Byramj Nusserwanje Sehi	May 1, 1878	Ditto	" 22
*094745 " " "	500	Executive Commissariat Officer, Morar.	Ditto	Ditto	" 22
078693 " " "	500	National Bank of India Ltd	May 1, 1880	Ram Coomar Choora-mony.	" 20
087871 " " "	500	Dyal Chund Saboye	May 1, 1873	Brijendra Coomar Sen	" 30
048219 " " "	500	Mooltan Chund	May 1, 1876	Chunno Lall	" 31
050218 " " "	500	Deb Nath Sreemany.	May 1, 1880	Kadumbeeni Dassie	" 33
084522, 4½ per cent., 1872	500	Pundit Harshabye and his wife Koopuanti.	Jan. 16, 1874	Pundit Harshabye and his wife Koopuanti	" 23
084523 " " "	500	Ditto	Ditto	Ditto	" 23
005285 " " "	500	Rajkristo Bannerjee	July 16, 1874	Omesh Chunder Bannerjee.	" 27
027710 " " "	1,000	Mohes Chunder Sen	Jan. 16, 1877	Mohes Chunder Sen	" 32
027711 " " "	1,000	Ditto	Ditto	Ditto	" 32
*008825 " " "	500	J. W. Fordham	Jan. 16, 1879	Seetanath Mytee	" 18
*065209 " " "	3,000	Aspinwall & Co.	July 16, 1878	Aspinwall	" 29
*033562 " " "	1,000	P. Valodia Chetty	Jan. 16, 1878	Ditto	" 29
*083563 " " "	1,000	Ditto	Ditto	Ditto	" 29
*083564 " " "	1,000	Ditto	Ditto	Ditto	" 29
065878, 4½ per cent., 1872, now Rd. 4 per cent., 1879.	500	Bank of Bengal	Jan. 16, 1880	Helen T. Schumacher	" 16
*000017 } *000097 } Nagpur Raipur Rail- *000098 } way Provincial De- *000050 } benture Loan of *000167 } 1879, 4½ per cent. *000178 }	200 500 500 500 500	Bawa Pershad Nirunjun Pershad Sukul Ditto Doorga Pershad Raja Mohip Sing Sheodat Ram Sukul	July 1, 1880 Ditto Ditto Ditto Ditto Ditto	{ Dy. Commissioner of Jubbulpore on behalf of the Debenture- holders specified op- posite.	{ " 17 " 17 " 17 " 17 " 17 " 17

* Duplicates of these Notes and Debentures have been ordered to be issued.

† Interest after the date herein mentioned has in most cases been paid to the claimant, without the production of the Note

No. 228.—The following lists of Notes which were advertised for discharge in Notification No. 3084, dated 11th August 1882, are republished in accordance with Financial Department Resolution No. 59, dated 11th January 1882.

No. 1.

List of Government Promissory Notes advertised on which interest is paid under orders of the Comptroller General, but duplicates of which have not yet been issued subsequent to Financial Notification, dated 4th September 1873.

No. of the Note.	Value.	In whose name issued.	From what date bearing interest.	Claimant for duplicate.	REMARKS.
	Rs.				
000078, 8½ per cent., 1853-54	1,600	Mootoo Sawmy Pillay	Aug. 31, 1871	Mootoo Sawmy Pillay.	Case No. 13
000478, 8½ per cent., 1853-54	5,000	Shama Sundary	Feb. 29, 1876	Shama Sundary	
66, 4 " 1832-33	3,100	J. A. Hawkins, Registrar Sudder Dewany Adalat.	May 1, 1852	Ranee Chunder Cally Dabee, Executrix of Raja Gurnesh Chunder Roy	
14663 " "	5,000	Motee Khanum	Nov. 1, 1856	Motee Khanum.	
ct. 4103 " "	6,500	The Registrar, Sudder De- wany Adalat.	May 1, 1872	Monce Brinddoo Dabee by her attorney Jogen- des Lal Mookerjee.	
000936 " "	2,000	Hurish Chunder Ghuttuck	Nov. 1, 1873	Hurish Chunder Ghut- tuck.	
ct. 001565, 4 per cent., 1832-33	2,000	M. Amcoorthlingum	May 1, 1878	P. Ramasawmy Moode- liar.	Case No. 12
ct. 001566, " "	3,000	Ditto	Ditto	Ditto	" 12
ct. 8939 " 1835-36	500	Krishto Mohun Mitter	Mar. 31, 1863	Madhub Chunder Chat- terjee.	
2709 " "	1,000	Motee Khanum	Sep. 30, 1856	Motee Khanum.	
005910 " "	2,800	Mootoo Sawmy Pillay	Sep. 30, 1871	Mootoo Sawmy Pillay.	
10948 " "	500	James English	Mar. 31, 1868	Madho Mistry.	
006592 " "	500	Hurish Chunder Ghuttuck	Mar. 31, 1873	Hurish Chunder Ghut- tuck.	
006296 " "	500	Ditto	Sep. 30, 1873	Ditto.	
005783 " "	600	Nobokissory Dasee	Sep. 30, 1872	Nobokissory Dasee.	
001262 " "	1,000	Sreenath Mookerjee	Mar. 31, 1871	Doyal Chund Seal.	
000671 " "	2,000	Ladli Persaud	Ditto	Ladli Persaud.	
009710 " "	500	Rajnarain Chatterjee	Mar. 31, 1875	Rajnarain Chatterjee.	
008612 " 1835-36	1,000	Kadumbini Debee	Sep. 30, 1874	Hura Kumar Gossain and Soorjee Kumar	Case No. 3
011382 " "	1,000	Ditto	Ditto	Gossain.	
015719 " "	1,000	Bank of Bengal	Mar. 31, 1877	Heera Lal	" 8
008595 " "	1,000	Prem Chand Bose	Sep. 30, 1870	Sham Chand Bose.	" 15
007603 " 1842-43	3,500	Mootoo Sawmy Pillay	Aug. 1, 1871	Mootoo Sawmy Pillay.	
016983 " "	500	Balerustna Myaram	Aug. 1, 1870	Balerustna Myaram.	
017477 " "	5,000	Wazeeromissa Khanum	Aug. 1, 1872	Yakoob Ally Khan.	
017473 " "	2,000	Ditto	Ditto	Ditto.	
20822 " "	500	Hurry Nath Mookerjee	Feb. 1, 1861	Behary Bhoosun Moo- kerjee.	
21200 " "	500	Ditto	Ditto	Ditto.	
024259 " "	1,000	Bholanath Mitter	Feb. 1, 1873	Bholanath Mitter.	
024261 " "	1,000	Ditto	Ditto	Ditto.	
011852 " "	1,000	Netye Churn Bysack	Ditto	Nabee Buksh Shekdar.	
029914 " "	1,000	Tara Soondary Dabee	Aug. 1, 1874	Tara Soondary Dabee.	
17528 " "	500	"	Aug. 1, 1867	Degumbery Dasee.	
018697 " "	500	Hurish Chunder Ghuttuck	Feb. 1, 1873	Hurish Chunder Ghut- tuck.	
018698 " "	500	Ditto	Ditto	Ditto.	
018699 " "	1,000	Ditto	Feb. 1, 1874	Ditto.	
023259 " "	1,000	Ditto	Aug. 1, 1873	Ditto.	
014164 " "	1,000	Ditto	Ditto	Ditto.	
013431 " "	500	Ditto	Feb. 1, 1873	Ditto.	
014328 " "	500	Ditto	Aug. 1, 1873	Ditto.	
ct. 14014 " "	1,000	The Bank of Bengal	Aug. 1, 1871	Doyal Chund Seal.	
18998 " "	1,000	Pettumbar Dhur	Ditto	Ditto.	
3166 " "	500	Bama Cally Dabee	Feb. 1, 1872	Bama Cally Dabee.	
034182 " "	1,000	Jeevunjee Bomanjee Har- musjee Pestonjee and Fuckerjee Lunjee.	Aug. 1, 1874	Harmusjee Pestonjee and Fuckerjee Lunjee.	
002640 " "	1,000	Peary Mohun Gossain	Aug. 1, 1866	Guru Churn Chucker- butty.	
040876 " "	5,000	Bepro Das Das	Aug. 1, 1877	Bepro Das Das.	
075291 " "	10,000	Penumatcha Seetarama- raga.	Ditto	Penumatcha Seetarama- raga Garra.	
029160 " "	4,000	Mothoora Nauth Sircar	Feb. 1, 1878	Niteunto Pull.	
024731 " 1842-43	2,000	Ramlall Buddredose	Feb. 1, 1854	Moonshi Newal Kissore.	Case No. 362
036608 " "	1,000	Oriental Bank Corporation	Feb. 1, 1878	Degumbery Dabee	" 355
035674 " "	1,000	Bank of Bengal	Feb. 1, 1877	Bhoobunesury Dabee	" "
019889 " "	5,400	Kadumbini Debee	Feb. 1, 1875	Hurroo Kumar Gossain and Soorjee Kumar Gossain.	" "
045164 " "	1,000	Mungamur Lakshminarsoo and Mungamur Lakeh- mamna.	Aug. 1, 1879	Mungamur Lakshmi- narsoo and Mungamur Lakehamanna.	" "
035983 " 1854-55	1,800	Ditto	June 30, 1879	Ditto	
ct. 401 " "	1,000	Gopal Chand Seal & Co.	Dec. 31, 1862	Madhub Chunder Chat- terjee.	
38666 " "	4,100	Motee Khanum	Dec. 31, 1856	Motee Khanum.	
25239 " "	2,000	Mootoo Sawmy Pillay	June 30, 1871	Mootoo Sawmy Pillay.	

No. of the Note.	Value.	In whose name issued.	From what date bearing interest.	Claimant for duplicate.	REMARKS.
	Rs.				
014428, 4 per cent., 1854-55	1,000	Hurrish Chunder Ghuttuck	Dec. 31, 1873	Hurrish Chunder Ghuttuck.	
024588	1,000	Ditto	Ditto	Ditto.	
43985	1,000	Pettumber Dhur	June 30, 1871	Doyal Chund Seal.	
021160	500	Khetter Gopal Sen	June 30, 1873	Khetter Gopal Sen.	
027795	1,000	Kahundoss Muncharam	Dec. 31, 1877	Gordhumbhai Doyaram.	
034705	1,000	J. H. Belchambers, W. L. Wenger, G. S. Sykes, and R. Williamson.	June 30, 1878	Survivors of the holders.	
019182	500	Prem Chunder Bose	Dec. 31, 1870	Sham Chand Bose	Case No. 15
030119	500	Troylucko Mohinee Dassee	Nov. 1, 1877	Troylucko Mohinee Dassee.	" 430
2766	500	Modhoo Seodun Bose	May 1, 1867	Saroda Churn Bose.	
041413	500	Goolab Shunker Doobey	Nov. 1, 1872	Goolab Shunker Doobey.	
045261	1,000	The Bank of Bengal	Nov. 1, 1873	Byramjee Harmanjee.	
003330	2,000	Netye Churn Bysack.	Nov. 1, 1872	Nabee Bukah Shekdar.	
1305	500	Tooley Dass Mullick	May 1, 1873	Wooma Churn Chuckerbutty.	
017194	500	Hurrish Chunder Ghuttuck	Ditto	Hurrish Chunder Ghuttuck.	
052804	500	Gopal Chunder Sreemany	Ditto	Ram Gopal Paul and Deno Nauth Ruckhit.	
055837	500	Bijraj Jagram	Ditto	Ditto.	
028408	500	Khetter Gopal Sen	Nov. 1, 1873	Khetter Gopal Sen.	
037506	500	The Bank of Bengal	Nov. 1, 1875	Comul Churn Endro.	
032310	3,000	Joggon Mohinee Dabee	May 1, 1876	Joggon Mohinee Dabee.	
060464	500	The National Bank of India, Limited.	Nov. 1, 1874	Octavius Steel.	
059217	500	Ditto.	Ditto	Ditto.	
060053	500	Ditto.	Ditto	Ditto.	
035045	5,000	Dr. Charles, J. Jackson, and Wm. M. Sonttar.	May 1, 1877	Sreeram Chunder Pal.	
037736	5,000	Modhobun Dass Dwarka Dass.	May 1, 1877	Jadob Chunder Pal.	
002173	2,000	Brojo Nath Mullick and others, Executors of Tarruck Nauth Mullick.	May 1, 1876	Sheik Nazir Mundle and Sheik Syed Mundle.	
036859	1,000	E. E. J. Tweedie	Nov. 1, 1875	Prosono Coomar Bose.	
066583	1,300	The Administrator General, Bengal.	Nov. 1, 1877	The Deputy Commr. of Delhi, Admr. of G. D. E. Dorris	
063409	5,000	Dheer Chund Paul	Ditto	Dheer Chund Paul.	
063410	5,000	Ditto	Ditto	Ditto.	
063411	2,000	Ditto	Ditto	Ditto.	
063412	500	Ditto	Ditto	Ditto.	
063413	500	Ditto	Ditto	Ditto.	
063618	1,500	Ditto	Ditto	Ditto.	
066044	500	Bissonath Bakchee	May 1, 1878	Prosono Coomar Bakchee.	
093935	500	J. H. Belchambers, W. L. Wenger, G. S. Sykes and R. Williamson.	Ditto	Survivors of the holders.	
039215	1,000	Baroda Prasad Mookerjee and another.	May 1, 1879	Ishan Chunder Bose	Case No. 7
107595	500	Ditto	Ditto	Ditto	" 6
095796	1,000	Bank of Bengal	May 1, 1877	Hera Lall	" 11
090048	500	Luchmeechand Radhakisen.	May 1, 1879	Shoolol Chundra Sen	
004614, 4½ per cent., 1872	800	The Chartered Mercantile Bank of India, London and China.	Jan. 16, 1872	Khetur Nauth Moostophi and Chunderguttu Moostophi.	
004407	500	Hurrish Chunder Ghuttuck	Jan. 16, 1874	Hurrish Chunder Ghuttuck.	
004594	1,000	Ditto	July 16, 1873	Ditto	
023973	5,000	Beethal Persaud	Ditto	Beethal Persaud.	
007068	500	Mooktamoni Dabee	Jan. 16, 1872	Mooktamoni Dabee.	
013984	500	Dimonanth Gangooly.	Ditto	Dimonanth Gangooly.	
032909	1,000	Mooktamoni Dabee	Ditto	Mooktamoni Dabee.	
034511	500	Ditto	Ditto	Ditto.	
012507	1,000	Pundit Sheo Churn	Ditto	Pundit Sheo Churn.	
050278	500	Charecondah Rama Chundria	July 16, 1876	Charecondah Rama Chundria.	
054501	1,100	Ramtarak Mookerjee	July 16, 1877	Kadumbini Dabee.	
027398	1,000	Nowrojee Bazonjee Fuckerjee.	Jan. 16, 1877	Merwanjee Franjee Moody and Jorhai.	
021163	1,000	Dhunjeebhoj Nanobhoj	Ditto	Ditto.	
028833	1,000	J. W. Chisholm	Ditto	Ditto.	
028834	1,000	Ditto	Ditto	Ditto.	
041272	1,000	C. M. H. Day	Jan. 16, 1875	Wallub Dass Heera Chund.	
040224	1,000	Kahandas Muncharam.	Jan. 16, 1878	Gordhumbhai Doyram.	
040225	1,000	Ditto	Ditto	Ditto.	
050172	1,000	Bhoobun Mohinee Dassee	Jan. 16, 1877	Bhoobun Mohinee Dassee.	
006776, 4½ per cent., 1872	500	Bunsi Lail Aberechand	July 16, 1874	P. Doorgachellum Mopdelliar.	" 1
043475	4,000	Jose Francisco de Piedade Pereira.	Jan. 16, 1872	Jose Andre Pereira	" 9

No. of the Note.	Value.	In whose name issued.	From what date bearing interest.	Claimant for duplicate.	REMARKS.
	R				
*060633 of Rd. 4 per cent. of 1879	2,500	Nurshingh Doss	July 16, 1881	Treasury Officer, Lahore on behalf of Nurshingh Doss	Case No. 455
*17523 of 4 per cent. of 1842-43.	500	Beccassur Bose	Aug. 1, 1867	Digumberry Dossee	" 236
Total Rs.	1,85,900				

* Duplicates of these Notes have been issued.

No. 2.

List of lost Government Promissory Notes advertised, duplicates of which have been issued under orders of the Comptroller General subsequent to Financial Notification, dated 4th September 1873.

No. of the Note.	Value.	In whose name issued.	From what date bearing interest.	Claimant for duplicate.	REMARKS.
	R				
490, 3½ per cent., 1853-54	10,000	Shama Soondry	Feb. 28, 1867	Shama Soondry.	
491 " "	10,000	Ditto	Ditto	Ditto.	
492 " "	3,000	Ditto	Ditto	Ditto.	
164 " "	600	Soolayman Mirza	Feb. 29, 1856	Soolayman Mirza.	
10084, 4 per cent., 1832-33	Sic. 500	Shibumain Roy	May 1, 1842	Shibumain Roy.	
12880-4281, 4 per cent., 1835-36.	1,000	Shama Churn Ghose	Mar. 31, 1871.	Shama Churn Ghose.	
6737-3298, 4 per cent., 1835-36.	500	Boly Chund Dutt	Mar. 31, 1866	Boly Chund Dutt.	
006752, 4 per cent., 1835-36	1,100	Rakhal Chunder Bhutta- charjee.	Sept. 30, 1872	Rakhal Chunder Bhutta- charjee.	
006814 " "	500	Tara Churn Bhuttacharjee	Ditto	Tara Churn Bhutta- charjee.	
8186 " 1842-43	500	Shama Churn Chatterjee	Feb. 1, 1861	Shama Churn Chatterjee.	
8475-17794, 4 per cent., 1842-43.	500	Brojo Govind Shaha	Feb. 1, 1869	Brojo Govind Shaha.	
11380, 4 per cent., 1842-43	700	Ditto	Ditto	Ditto.	
6024 " "	500	Cassee Nath Dhur	Aug. 1, 1859	Shiboo Soondery Dassee.	
16245 " "	5,000	Nobokristo Ghose, deceased	Aug. 1, 1865	Moumohun Ghose and Saroda Soondry Dassee.	
8653-9563, 4 per cent., 1842-43.	3,000	Ditto	Ditto		
017871, 4 per cent., 1842-43	500	Kadumbini Dassee	Feb. 1, 1873	Kadumbini Dassee.	
000254 " "	1,000	Ditto	Ditto	Ditto.	
020284 " "	500	Ditto	Ditto	Ditto.	
011009 " "	2,000	Ditto	Ditto	Ditto.	
021705 " "	1,000	Unoda Churn Bhutta- charjee.	Aug. 1, 1872	Unoda Churn Bhutta- charjee.	
et. 18856 " "	500	Modosooden Chunder	Ditto	Ditto.	
21611 " "	600	Nobin Chunder Dass	Aug. 1, 1870	Nobin Chunder Dass.	
022862 " "	500	Modhoo Soondun Chowdry	Aug. 1, 1873	Ditto.	
038336 " "	1,000	W. T. Lindsay	Feb. 1, 1875	John Lindsay, Adminis- trator of W. T. Lindsay.	
016542 " "	10,700	H. Palmer	Aug. 1, 1878	The Revd. Robert Milford Taylor, R. M. Taylor Jr. and Alicia Mary Taylor.	
et. 14713 " "	500	Anoop Chund Moolkund	Aug. 1, 1858	Bazeonjee Furdonjee.	
056370, 4 per cent., 1842-43	1,000	The Chartered Mercantile Bank of India, London, and China.	Aug. 1, 1878	V. Kristnana Chetty.	
056453 " "	2,000	Ditto	Ditto	Ditto.	
056371 " "	1,000	Ditto	Ditto	Ditto.	
056372 " "	1,000	Ditto	Ditto	Ditto.	
080125 " "	1,000	The Agra Bank, Limited.	Ditto	Ditto.	
063895 " "	1,000	The Bank of Bombay	Ditto	Ditto.	
059414 " "	1,000	The Oriental Bank Corpo- ration.	Ditto	Ditto.	
058152 " "	100	The Bank of Bombay	Feb. 1, 1879	Surgeon H. D. Mussani.	
055207 " "	100	The Chartered Mercantile Bank of India, London, and China.	Ditto	Ditto.	
065211 " "	100	Ditto	Ditto	Ditto	
1133 " "	500	Calypoda Mookerjee, de- ceased.	Feb 1, 1862	Sowdamin Dabee.	
6970 " "	1,000	The Executive Commis- sariat Officer, Fort Wil- liam.	Ditto	Ditto.	
049945 " "	2,000	The Bank of Bengal	Feb. 1, 1878	Mohomed Wujhoollah Khan.	
20762 " 1854-55	500	D. McCulluch	June 30, 1859	Shiboo Soondery Dassee.	
2530-17672, 4 per cent., 1864-55.	500	Obhoy Churn Dutt	Ditto	Ditto.	
026294, 4 per cent., 1854-55	50,000	H. B. Goodall	Dec. 31, 1873	H. B. Goodall.	
024455 " "	10,000	Ditto	Ditto	Ditto.	
024456 " "	1,000	Ditto	Ditto	Ditto.	
026295 " "	1,000	Ditto	Ditto	Ditto.	
022758 " "	1,000	The Oriental Bank Corpo- ration.	Ditto	Ditto.	
027593 " "	2,000	The Allahabad, Bank Li- mited.	Ditto	Ditto.	

No. of the Note.	Value.	In whose name issued.	From what date bearing interest.	Claimant for duplicate.	REMARKS.
	<i>R</i>				
022887 4 per cent., 1854-55	5,000	Major J. W. Heggan	Dec. 31, 1873	The Delhi and London Bank, Limited.	
38714 " "	4,000	Nobokristo Ghose, deceased	Dec. 31, 1865	Monemohun Ghose and Sarada Soondery Dassee.	
17950 " "	1,500	Ditto	Ditto	Ditto.	
7582 " "	500	Ruggoonath Succaba, deceased	Dec. 31, 1867	Morabha Saccaram.	
772-16295 " "	1,000	Boly Chund Dutt	June 30, 1866	Boly Chund Dutt.	
001886 " "	1,000	Moolchand Premjee & Co.	June 30, 1875	Captain F. J. Palmer.	
008379 " "	500	Greesh Chunder Mitter	June 30, 1872	Unoda Churn Bhuttacharjee.	
016140 " "	500	Rakhal Doss Bhuttacharjee	Ditto	Rakhal Chunder Bhuttacharjee.	
016138 " "	1,000	Obhoy Churn Bhuttacharjee	Ditto	Obhoy Churn Bhuttacharjee.	
009231 " "	1,000	Ditto	Ditto	Ditto.	
10927-11615, 4 per cent., 1854-55	500	The Executive Commissariat Officer, Gwalior.	June 30, 1865	Rebecca Johnstone.	
9815 of 1088, 4 per cent., 1854-55	500	The Administrator General, Administrator to the Estate of H. Randolph.	June 30, 1874	Tara Kissur Mookerjee.	
36507, 4 per cent., 1854-55	2,000	Bullakadass Khemchand	Dec. 31, 1863	Veejchand Keekchand.	
39958 " "	1,000	Ditto	Ditto	Ditto.	
6392-26308, 4 per cent., 1854-55	1,000	Ditto	Dec. 31, 1862	Ditto.	
011009, 4 per cent., 1854-55	1,000	The Administrator General, Bengal.	Dec. 31, 1877	The Deputy Commissioner of Delhi, Administrator of G. D. E. Dorris.	
1868-9358, 4 per cent., 1854-55	500	The Deputy Commissary General Upper Circle.	Dec. 31, 1861	Sowdamini Dabee.	
058157, 4 per cent., 1865	500	The National Bank of India, Limited.	May 1, 1874	Opendra Nauth Mitter.	
011620 " "	1,000	J. W. Smyth	Nov. 1, 1869	J. W. Smyth.	
011621 " "	1,000	Ditto	Ditto	Ditto.	
011622 " "	1,000	Ditto	Ditto	Ditto.	
011623 " "	1,000	Ditto	Ditto	Ditto.	
011624 " "	1,000	Ditto	Ditto	Ditto.	
055948 " "	2,000	Bevole Nauth Haldar	May 1, 1873	Bevole Nauth Haldar.	
2009 " "	1,000	Bank of Hindustan, China and Japan, Limited.	May 1, 1865	Khetter Mohun Nag.	
020899 " "	500	Jebun Kristo Mullick	Nov. 1, 1869	Doorga Churn Mullick.	
030158 " "	500	Dyal Chund Saboye	Nov. 1, 1870	James Brown.	
1802 " "	500	Cossai Nauth Mookerjee	May 1, 1873	Luckhy Money Dassee.	
035154 " "	500	Meher Lall Shamunto	Ditto	Meher Lall Shamunto.	
068458 " "	1,000	W. T. Lindsay	May 1, 1875	John Lindsay, Administrator of W. T. Lindsay.	
068459 " "	1,000	Ditto	Ditto	Ditto.	
095149 " "	500	Tariny Churn Ghose	May 1, 1877	Chotay Lall.	
099158 " "	500	Gouang Chunder Sirkar	Ditto	Gouang Chunder Sirkar.	
099159 " "	500	Ditto	Ditto	Ditto.	
107875 " "	700	Nogur Mull	Nov. 1, 1878	The Executive Commissariat Officer, Umballa.	
086879 " "	1,000	Builoverder Doss	Ditto	The Unconventured Service Bank, Limited.	
097595 " "	1,000	H. L. Tonnochee	May 1, 1876	H. L. Tonnochee.	
099542 " "	1,000	The Joint Administrators of Bhowanagar State.	Nov. 1, 1878	V. Kristnann Chetty.	
014095, 4 per cent., 1865	800	The Administrator General, Bengal.	Nov. 1, 1877	The Deputy Commissioner of Delhi, Administrator of G. D. E. Dorris.	
018419 " "	500	Ditto	Ditto	Ditto.	
005806, 4 per cent., 1870	700	The Bank of Madras	Jan. 15, 1872	Lalladhar Zavirechand.	
000996 " "	500	Chundy Churn Ghose	July 15, 1873	Chundy Churn Ghose.	
048736, " " 1872	1,000	Shumbhoo Pundoorung	Jan. 16, 1879	The Deputy Commissioner of Balaghat.	
056565 " "	10,000	The Bank of Madras	Jan. 16, 1876	V. Thavasumatha Nandan.	
023359 " "	5,000	The Chartered Mercantile Bank of India, London, and China.	July 16, 1877	Davidass Franjeevandass.	
▲ 006662 Rd. 4 per cent., 1879	2,000	The Bank of Bengal	July 16, 1880	The Inspector General of Police, N. W. P.	
▲ 005090 " "	5,000	The Agra Bank, Limited	Ditto	Ditto.	
000010 Non-transferable 5 per cent. Try. Note.	500	Gopi Kabai, Manager of Mundir Vithul Rukmai.	Sept. 16, 1874	Gopi Kabai, Manager of Mundir Vithul Rukmai.	
008488, 5 per cent 15 years debenture.	1,000	The Bank of Bengal	June 1, 1878	Moonahree Purbhoodial.	Now notified for discharge.
Total	2,16,500				

F. B. PRACOCK,
Offg. Secretary to the Govt. of Bengal.



The Calcutta Gazette.

WEDNESDAY, JANUARY 24, 1883.

PART I A.

Orders and Notifications by the Government of India, &c.

[Reprinted from the Gazette of India.]

The following orders, issued by the Government of India in the Home Department, are republished for general information :—

NOTIFICATIONS.—JUDICIAL.

Fort William, the 19th January 1883.

No. 73.—The Honorable A. Wilson, a Judge of the High Court of Judicature at Fort William in Bengal, has obtained furlough for eleven months, with effect from the 10th March next, or from any subsequent date on which he may avail himself of it.

This cancels Home Department Notification No. 21, dated the 6th instant.

ECCLÉSIASTICAL.

The 13th January 1883.

No. 8.—The Governor-General in Council is pleased to confirm the furlough for one year and six months granted by the Lord Bishop of Calcutta to Mr. F. J. Fergusson, Registrar of the Diocese, with effect from the 15th January 1883.

The Lord Bishop has nominated Mr. A. B. Miller, Barrister-at-law, to officiate as Registrar.

The 18th January 1883.

No. 11.—The Reverend G. G. Gillan, M.A., Senior Chaplain of the Church of Scotland on the Bengal Establishment, has obtained furlough on medical certificate for 300 days, with effect from the 19th instant, or any subsequent date on which he may avail himself of it.

The Reverend G. W. Manson, B.D., Chaplain of the Church of Scotland on the Bengal Establishment, is appointed to officiate as Senior Chaplain on return from furlough, *vice* the Reverend Mr. Gillan.

The following order, issued by the Government of India in the Foreign Department, is republished for general information :—

NOTIFICATION.—POLITICAL.

Fort William, the 15th January 1883.

No. 155G.—Subject to the confirmation of Her Majesty's Government, the Governor-General in Council is pleased to recognize the appointment of Mr. Alfred Ritz as Acting Consul for the Austro-Hungarian Empire at Calcutta, during the absence of Mr. H. Reinhold.

The following orders, issued by the Government of India in the Department of Finance and Commerce, are republished for general information :—

NOTIFICATIONS.

Fort William, the 10th January 1883.

No. 392.—Ordered that the following list of articles which can be procured of Indian manufacture be published in the *Gazette of India* for general information :—

List of articles which can be procured of Indian manufacture.

Names of articles.	Source from which obtainable of local manufacture, so far as known.	Names of articles.	Source from which obtainable of local manufacture, so far as known.	
A.				
AGRICULTURAL IMPLEMENTS—		CHEMICAL PRODUCTS AND DRUGS AND MEDICINES—		
Axes	Canal Foundry and Workshops, Roorkee; Jessop and Company, Calcutta.	Acid, boracic		
Baskets, wire		" hydrochloric, pure		
Bill hooks		" " commercial		
Buckets		" " Purvis, tested		
Forks		" nitric, pure		
Harrows		" " commercial		
Knives		" sulphuric, pure		
Kodolies		" " common		
Pick-axes		Aloe, socotrina		
Pots, watering		Alum		
Rakes		Ammoniacum		
Rollers		Ammonia chloride, salammoniac		
Scythes		" liquor		
Shears		" " acetatis		
Shovels		" " fortissimus		
Spades		Antimony, black		
APPAREL—		" metal		
Badges	Largely made at Delhi, Agra, and Lucknow and in Calcutta.	" oxide		
Buttons*		" sulphide		
Caps, forage (for police)		" sulphuric		
Coats and capes, waterproof	Extensively manufactured in the North-Western Provinces and Punjab.	Arsenic		
Lace, gold		Assafœtida		
" silver		Blistering flies (mylabris eichorii)		
ARMS—		Borax		
Scabbards		Calcium, chloride of		
Swords		Calumba root		
B.		Camphor		
BUILDING AND ENGINEERING MATERIALS—		" oxide, black		
Cement, Portland	Indian Portland Cement Company, Calcutta, (Messrs. Burn & Co.)	Cardamom seeds		
Compasses		Caraway seeds		
Gypsum		Cassia pulv		
C.		Castor oil		
CABINETWARE AND FURNITURE—		Catechu		
Brooms	United Spinning and Weaving Company, Bombay, and other Cotton Mills at Bombay.	Chloroform, methylated		
Envelope stands		Cinchona		
Stationery cabinets		Cinnamon bark		
CANVAS—		Cloves		
Canvas		Copper, black, oxide of		
		" nitrate of... ..		
		" oxide, pure		
		" " granulated		
		" sulphate*... ..		
		Coriander seed		
		Cubebs		
		Ether, rectified		
		" sulphuric		
		Ferri sulphas		
		Gamboge		
		Ginger, dry		
		Gold, chloride of		
		Gum, acacia		
		" benzoin		
		" mastiche		
		" myrrh		
		" tragacanth		
		Hyoscyamus, extract of		
		" leaves		
		Iron, oxide of		
		" perchloride (crystallized)		
		" peroxide of		
		" persulphate		
		" sulphate		
		Jalap		
		Kameyla		

Most of the chemicals are made at Cossipore Chemical Works, Calcutta, belonging to Dr. Waldie.

Hyoscyamus can be procured from the Botanical Gardens at Saharanpur, North-Western Provinces, and from the Botanical Gardens at Ghaushkhind, Poona.

Jalap and peppermint can be procured from the Government Gardens at Ootacamund.

Most of the chemicals are made at Cossipore Chemical Works, Calcutta, belonging to Dr. Walidie.

Hyoscyamus can be procured from the Botanical Gardens at Saharanpur, North-Western Provinces, and from the Botanical Gardens at Ghanshkhind, Poona. Jalap and peppermint can be procured from the Government Gardens at Ootacamund.

* These articles are not at present regularly manufactured in India, but can be made to order, and probably would be manufactured, were there any regular demand for them.

List of articles which can be procured of Indian manufacture—continued.

Names of articles.	Source from which obtainable of local manufacture, so far as known.	Names of articles.	Source from which obtainable of local manufacture, so far as known.	
CHEMICAL PRODUCTS AND DRUGS AND MEDICINES—continued.		COTTON AND LINEN GOODS—contd.		
Kousso ...	Most of the chemicals are made at Cossipore Chemical Works, Calcutta, belonging to Dr. Waldie. Hyoscyamus can be procured from the Botanical Gardens at Saharanpur, North-Western Provinces, and from the Botanical Gardens at Ghaneshkhind, Poona. Jalap and peppermint can be procured from the Government Gardens at Ootacamund.	Long cloths ...	The Cotton Mills in Bombay and Cawnpore.	
Liquorice root ...		Mule twist thread...		
Morphia acetat ...		Malmal ...		
" hydrochloras ...		Muslin ...		
Narcotine ...		Putsoes or dhoties...		
Nitre ...		Rumals ...		
Nutmegs ...		Salu, red ...		
Nux vomica ...		Sheeting ...		
Oak bark ...		Shirtings ...		
Oil, cajeputi ...		Tape ...		
" poppy ...		Towels ...		
" chalmugra ...		Turbans ...		
" croton ...		Wicks for lamps of all descriptions.		
Opium, cake, medical ...				
" powder ...				
Peppermint ...				
Petroleum ...				
Plaster of Paris ...				
Rose confect ...				
Rose-water ...				
Saltpetre ...				
Senna leaves ...				
Silver, cyanide of ...				
" nitrate of, crystal ...				
" " common ...				
" " fused ...				
Spirit ether nitrose ...				
Anantamul (Hemidesmus indicus) ...				
Wax (vegetable), white ...				
Zinc, chloride of ...				
COAL AND COKE, &c.—		E.		
Coal† ...	Messrs. Ahmuty & Co. and W. H. Harton & Co. of Calcutta.	EARTHENWARE AND PORCELAIN—		
Coke† ...		Basins, porcelain ...	Raniganj Pottery Works (Messrs. Burn & Co.), Mercara Pottery, Coorg (Mr. H. R. East).	
Charcoal, animal ...		Cups ...		
" pure ...		Dishes ...		
" wood ...		Filters ...		
		Jugs ...		
		Pans ...		
		Pots, earthen ...		
		Saucers, colour ...		
		Slabs " ...		
CORDAGE AND ROPE OF VEGETABLE FIBRE—		G.		
Cord ...	The Cotton Mills in Bombay and Cawnpore.	GLASS AND GLASSWARE—		
Line, Fishing ...		Gum bottles ...	Canal Foundry and Workshops, Roorkee; Postal Workshop, Aligarh; Messrs. Apcar & Co., Burn & Co., Jessop & Co., Ahmuty & Co., Anunto Ram Dhur & Co., of Calcutta; Messrs. Fraser and Miller, and Messrs. Richardson and Cradock, of Bombay.	
" House ...		Ink pots ...		
" Log ...		Retorts ...		
" Rat ...				
Oakum ...				
Rope ...				
" Coir ...				
" Hemp, tarred ...				
" Manilla ...				
Roping, twine, ...				
Twine ...				
COTTON AND LINEN GOODS—		H.		
Braids ...	The Cotton Mills in Bombay and Cawnpore.	HARDWARE AND CUTLERY—		
Calico ...		Adzes ...	Good locks are made by A. Sankaralingam Achari, Diddigul, Madura district, Madras, and by Das & Co., Chitpore Lock Manufactory, Calcutta.	
Chintz ...		Anvils, small, watchmaker's ...		
Cloth, cotton, of sorts ...		Badges ...		
Coats, drill (blue and khaki) ...		Balances ...		
Cord, cotton ...		Bayonets ...		
" shoulder ...		Bells ...		
Cotton thread for sewing ...		Blocks, single and double ...		
Cotton packing ...		Bodkins ...		
" twist ...		Bolts, brass and iron ...		
Dhoties, grey, cotton ...		Bradawls* ...		
Drills, unbleached, and dyed ...		Brass hands, punkah ...		
Duck ...		" lamps ...		
Dungri cloth ...		Call bells ...		
Dusters ...		Candlesticks ...		
Jumpers, drill ...		Coach screws, for brackets* ...		
Khaki cloth ...		Cocks, brass (delivery) ...		
		Crucibles ...		
		Hammers (all kinds) ...		
	Handles, brass ...			
	Hatchets ...			
	Hinges ...			
	Hooks for carbines ...			
	Knives ...			
	Lamps of sorts ...			
	Lanterns " ...			
	Locks* " ...			
	" pad ...			

* These articles are not at present regularly manufactured in India, but can be made to order, and probably would be manufactured, were there any regular demand for them.

† Applicable at present only to places where it is advantageous to obtain supplies from the coal mines in Bengal.

List of articles which can be procured of Indian manufacture—continued.

Names of articles.	Source from which obtainable of local manufacture, so far as known.	Names of articles.	Source from which obtainable of local manufacture, so far as known.	
HARDWARE AND CUTLERY—contd.		LIQUORS, &c.—contd.		
Nippers ...	Canal Foundry and Workshops, Roorkee; Postal Workshop, Aligarh; Messrs. Apear & Co., Burn & Co., Jessop & Co., Ahmuty & Co., Anunto Ram Dhur & Co., of Calcutta, Messrs. Fraser and Miller, and Messrs. Richardson and Crudas, of Bombay.	Rum ...	Messrs. Ahmuty & Co., Calcutta; Rosa Factory (Messrs. Carew & Co.) Shahjahanpore; Aska Distillery, Ganjam.	
Nuts* ...		Spirits, methylated ...		
Oil-feeders ...		" of wine rectified ...		
Pestles and mortars ...		M		
Pincers ...		METALS, BRASS—		
Planes ...		Hoops, brass ...	See Hardware, &c.	
Pliers, assorted ...		Pipes " ...		
Rings, iron and brass ...		Taps " ...		
" for keys ...		METALS, COPPER—		
Rules, foot* ...		Copper leaf (books) ...		
Safes, iron* ...		METALS, IRON—		
Scales and weights (all sizes) ...		Anchors, small ...	See Hardware, &c.	
Scissors ...		Chains, galvanized, with arrows ...		
Screw drivers ...		" iron ...		
Sieves (assorted) ...		" all other sorts (galvanized or not galvanized) ...		
Spatula ...		Clip hooks ...		
Stoves ...		Compasses ...		
Taps and dies* ...		Crowbars ...		
Trowels ...		Drums, iron, galvanized or not (for oil) ...		
Tweezers ...		Filings ...		
Vices, bench* ...		Grapnels ...		
" hand ...		Handcuffs ...		
" pin with screw ...		Hand-saws ...		
Weighting machines, for letters and parcels ...	Jumpers, iron ...			
Weights ...	Marlin spikes ...			
Wheels, punkah, brass ...	Pipes, gas* ...			
Wrenches ...	Pipes and tanks, iron galvanized iron* ...			
HEMP—		Pulleys, cast iron ...		
Spun yarn ...	See Cordage.	Rivets* ...		
" " tarred ...		Spears ...		
HIDES AND SKINS—		Stand, iron tripod ...		
Hides ...	See Leather.	Thimbles, iron ...		
Skins ...		Washers ...		
L		METALS, TIN—		
LEATHER AND LEATHER GOODS—		Boxes, tin ...	Largely made in the Indian Gazars.	
Ball bags ...	Messrs. Tuck, Harvey & Co.; Foy Brothers, and Cooper, Allen & Co., of Cawnpore; Mr. F. Rowland, of Bombay; Messrs. Maurice, Fielman & Co., Tangra Tannery, Calcutta.	Cans, tin ...		
Batons, frog ...		Cases, tin, for maps ...		
Bellows ...		Ingots, imported from the Straits Settlements ...	Ditto.	
Belting for driving machines ...		Sand boxes, tin ...		
Belts of sorts ...		O		
Covers, leather ...		OILS—		
Delivery hose, leather ...		Castor oil ...	The Gourepore Co., Limited, Calcutta; Messrs. Tuck, Harvey & Co., Cawnpore; and the Punjab Steam Mills Co., Lahore.	
Haversacks ...		Cocanut " ...		
Laces, leather ...		Linseed " (boiled) ...		
Leather ...		" " (raw) ...		
Petis ...		Mustard " ...		
Pateas ...		Sweet " ...		
Petaras ...		Turpentine " ...		
Postal bags ...		LIQUORS, &c.—		
Pouches, ammunition cap ...		Beer ...	The several Indian breweries.	
Saddlery, camel ...				
" horse ...				
Slings for carbines ...				
" muskets ...				
Talwar, frog ...				
Writing cases, leather ...				

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List of articles which can be procured of Indian manufacture—continued.

Names of articles.	Source from which obtainable of local manufacture, so far as known.	Names of articles.	Source from which obtainable of local manufacture, so far as known.
P		SOAP—	
PAINTS AND COLOURS—		Soap ...	North-West. Soap Co., Meerut; Tuck, Harvey & Co., Cawnpore; Calcutta (Garden Reach) Soap Works; Bombay Steam Soap and Candle Works.
Lamp black ...			
Lead, red ...			
" white ...			
Paint, black ...			
Polish ...			
Varnish, copal, japan, &c.* ...			
PAPER AND PASTE BOARD—		STATIONERY—	
Paper, brown ...	Bally Paper Mills, Calcutta.	Envelopes ...	
" blotting ...	Scindia Paper Mills, Gwalior.	" linen lined ...	
" cartridge ...	Upper India Paper Mills, Lucknow.	Erasers ...	See Hardware, &c., and Penknives.
" packing ...	Girgaum Paper Mills, Bombay.	File boards ...	
		Glue, best, for binding ...	
Pasteboards ...	Kurree Bux Brothers, Calcutta.	" pots ...	
Straw " ...	A. B. DeNigri, Calcutta.	Gum Arabic ...	
PRINTING AND LITHOGRAPHING MATERIALS—		Ink, writing, black ...	Dr. Waldie, Calcutta; Babu Amrito Lal Roy, Calcutta.
Case racks ...		" " blue-black ...	G. D. Iyah Pillai; M. Narasimooloo Chetty; Gooerdondoss Birjuboonkondoss & Co., & Theagaroya Moodelly, Madras; Mr. Kelkar of Poona; Pranlal Achrablal of Bombay.
Centre pieces, brass ...		" " registration, black ...	
Chases ...		" " powder, black ...	
" cast-iron ...		" " red, not for registration ...	
Composing sticks (gun-metal) ...		" for seals ...	
Cylindrical inking tables ...		" printing ...	
Footsticks, iron ...			
Forme racks ...		Inkstands, wooden ...	
Galleys, brass, with wooden rims ...		" pewter, round ...	
" large, brass, bottomed ...		" brass ...	
Imposing slabs ...		" glass ...	
" " wooden frames for table, iron ...		Knives (paper folder) ...	
Lye ...		Note books ...	
" jars, portable, cast-iron, with false bottom ...		Paper-cutters (ivory, bone or wood) ...	
Mallets, book ...		" weights ...	
Plainers ...		Penholders (ivory) ...	
Pressing boards ...		" (other kinds) ...	
Shooting sticks, iron ...		Penknives ...	{ Premchand Mistry of Kachannugger, Burdwan, Bengal.
Side " ...		Scissors ...	
Tools, book-binder's ...		Portfolios ...	
" stereotype picker's ...		Rulers, flat ...	
Trough (for galley washing) ...		" parallel ...	
" for lye ...		" round ...	
Wood-bearers ...		Sand ...	
		Wax-cloth ...	
		" sealing ...	
PROVISIONS—		STONE AND MARBLE—	
Hog's lard ...		Grindstones ...	
Vinegar ...		Jars, stoneware, for battery ...	
		Marble ...	
S		T	
SCIENTIFIC INSTRUMENTS AND APPARATUS—		TALLOW—	
Rain-gauges ...		Candles ...	Bombay Steam Soap and Candle Works.
Spirit levels ...			
Sundials ...	Canal Foundry and Workshops, Roorkee.		
SILK—		W	
Ribbon ...	Alliance Cotton and Silk Manufacturing Co., Bombay.	WAX—	
Tape ...		Bees ...	
Goung-boungs or turbans ...		Candles ...	
Head-bands ...			

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